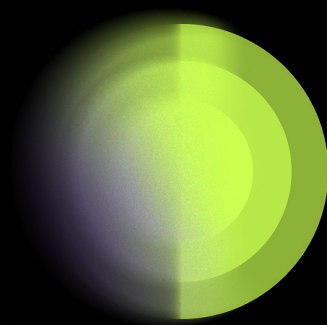


Create.Control

user manual





Create.Control

Welcome to Create.Control, your Soundscape interface!

Create.Control software allows for the control of Soundscape systems which require some of the following components:

- A DS100 or DS100M audio processor feeding a system of d&b speakers and amplifiers.
- Optional: En-Scene installed on the DS100 or DS100M processor.
- Optional: En-Space installed on the DS100 or DS100M processor.
- The DS100 processor must be programmed using ArrayCalc and R1 software.
- Pre-programming a show file can be built while offline, without any of the above mentioned components.

Conventions used within this document:

- Click in the the table of contents to navigate directly to that section.
- Terms in *Italics* indicate text within a software application.
- Terms in **Medium text** indicate steps to follow within an application or Soundscape specific terminology.
- Terms in **Bold text** indicate important information to pay attention to.
- Anywhere that the terms "DS100" or "Soundscape processor" are used without specifying the I/O size or network protocol indicates the process is identical for all DS100 and DS100M variants.
- Blue text is a bookmark to the section written in the link. e.g., [Getting started](#)
- Blue text with the word "[here](#)" is a link to an external website and will require an internet connection.
- Something missing or unclear? Email support@dbaudio.com so we can continually improve!

! Important notice to users !

Using Create.Control requires the DS100 or DS100M to be running firmware version 3.02.00 or above. With older firmware versions, the processor may exhibit a lag or delay when implementing parameter changes applied by Create.Control. At the time of this document version, the current processor firmware is 3.02.02 which enables bridging with Yamaha Rivage consoles (accompanied by an update to En-Bridge).

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1. What's New

1.1. v1.2 - User Experience Improvements

1.2. MIDI Control

In version 1.2 we have included the ability to recall Snapshots and play Animations via MIDI events. Review the [MIDI mapping page](#) to learn how to connect your MIDI device to Create.Control.

1.3. Connectivity Reliability

The connection process has been improved to avoid situations reported by some users where a Soundscape processor isn't initially discovered on the network until after some time.

1.4. In-App Updates

From this version forward you will no longer need to access [dbaudio.com](#) and login with your account to download an update for Create.Control. Rather, when a new version is released when opening Create.Control while connected to the internet you will be notified via in-app pop-up that an update is available to download.

Tip: If you're about to control a live show, please wait until after your show/tour is complete to avoid potentially disrupting any existing workflows.

1.5. In-App Help

With this release we have introduced the In-App Help menu for Create.Control. The help menu, when accessed, will provide you with context-relevant information about whichever view or page you are currently viewing. The help menu can be access via the hamburger menu or the **F1** button on the keyboard.

1.6. Usability improvements

You've asked for it, and we heard you. You can now Double-Click on the Viewport to re-center on the point-of-origin in your project. Plus, you can reduce the transparency of your highlighted sound objects, making it now possible to only see the selected sound objects. Also, objects which you have muted now show a **red** halo, and can be muted directly from the Viewport.

Group modifiers have been improved, allowing you to adjust the position of all objects in a group, or individual objects, all directly from the Viewport. This also applies to multiple selected sound objects which are not in the same group, or any group. Give it a shot by simply selecting a few objects and notice the new interface in the Viewport.

The Snapshot View has added the ability to make absolute adjustments to rows and columns, giving you greater flexibility over your snapshot modifications.

On the Project scaling page you can now rotate your project as well scaling it.

Additionally, the Animations have seen several usability improvements:

- Offset indicators
- Repeat rules
- Sound Objects Toolbar provided for Animations
 - Solo-In-Place on Animations View
 - Zoom and Center on selected Animation
 - Highlight attached sound objects to selected Animation

Special shoutouts to Ayumi and Ning for bringing real-world reports back to us!

1.7. v1.0 - Woohooo!!!!

Lets take a quick moment and recognize the team who have been working very hard to make this software a reality! Al, Robb, Christian, Georg, Becky, Florian, Ralf, Jasmin, Serge, Andy, Simon, Fabio, Julian, Felix, Martin and his teams of pirates, Chloe, Erica, Andrew and Nick.... and so many other people within d&b and our partners.

We also want to thank our core users who worked hard to provide feedback and beta testing! You are all appreciated!

Special shoutout to Nat!

1.8. This is the beginning

We wanted to get the value of Create.Control into your hands as quickly as possible. For this reason, there are some features which are not yet supported:

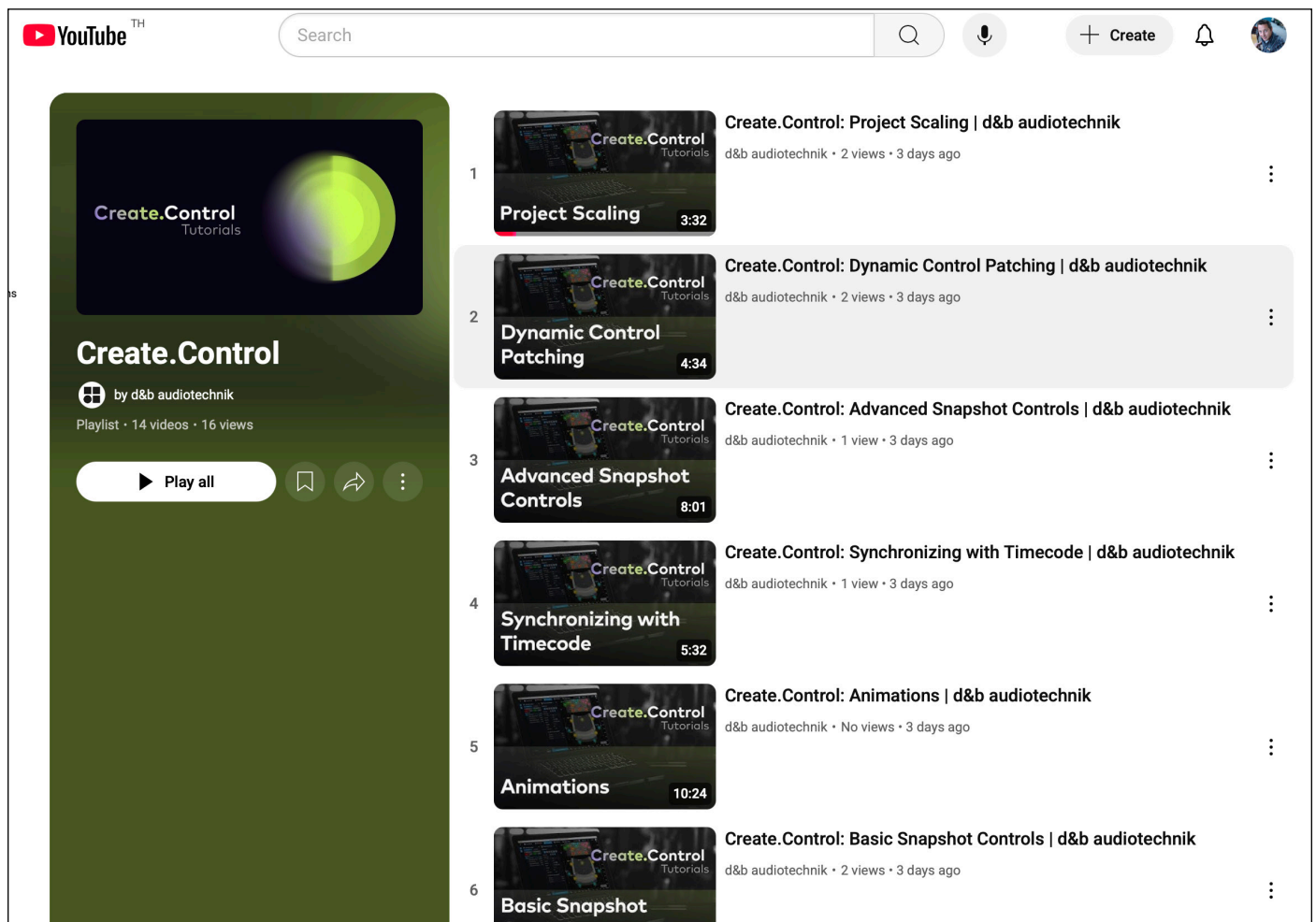
- Support for multiple processors (redundancy, output expansion, etc)
- Control of Create.Control via OSC or MIDI (you can still send OSC directly to a DS100 as before)
- In-app help menu
- In-app updates

1.9. Required DS100 firmware

Using Create.Control requires the DS100 or DS100M to be running firmware version 3.02.00 or above. With older firmware versions, the processor may exhibit a lag or delay when implementing parameter changes applied by Create.Control. At the time of this document version, the current processor firmware is 3.02.02 which enables bridging with Yamaha Rivage consoles (accompanied by an update to En-Bridge).

1.10. Tutorial Videos

Create.Control was released with a lengthy playlist of tutorial videos. If you would prefer to learn about Create.Control this way, please check out the [d&b YouTube channel](#). We also recommend you read the [Create.Control Concepts](#) section which explains everything that Create.Control is and what it can do.



2. Uses for Create.Control

Soundscape supports a variety of venue configurations and system designs. However, depending on the type of event, an essential decision is whether a 180° system or a 360° system is required. Should sound objects only represent artists, instruments or other sources on a stage, a Soundscape 180° system is sufficient. It is arranged across the stage front or proscenium. Only when sound objects should be played from other directions or located and around the audience area an additional Soundscape 360° surround system should be considered. Alternatively, an Soundscape 180°+ system can be considered which extends beyond the width of the stage without fully surrounding the audience. This provides a larger-than-life canvas while reducing cost and installation time compared to a full 360° system. 180°+ and 360° setups can be good configurations for En-Space, adding the ability too transport the listeners to differing acoustic environments. To use En-Space, the license must be activated on the processor which drives the speaker system.

Regardless of the deployment, the Soundscape processor will automatically down-mix or up-mix all object positions into the available loudspeakers. For more information, consult the Soundscape Guide Book, located [here](#).

2.1. Example A: Touring engineer

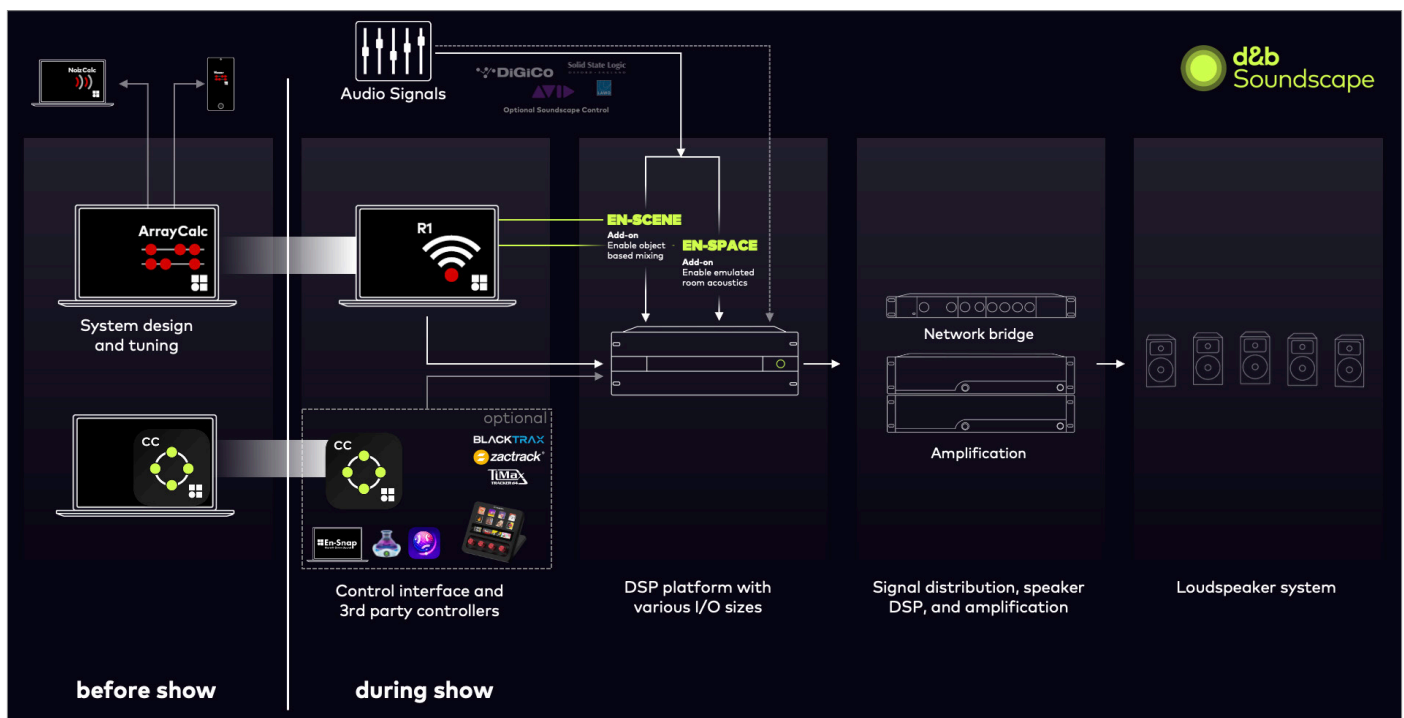
Create.Control allows for the offline editing and preprogramming of an entire event, without the need for a Soundscape processor or speakers. Objects can be named, colored, pre-placed and snapshots can be preprogrammed to allow for fast adaptation when onsite. In this scenario, the mixer can pre-set all parameters and then hear the result once connected to the venues system.

All preprogrammed show data can be quickly and easily re-scaled onto the actual system while retaining all previous programming.

2.2. Example B: Installation user

R1 allows for customized remote views and lockout functionalities which are highly useful for installation projects. However, R1 still has control over all amplifier settings and deep Soundscape programming which may want to be hidden during day-to-day use when an operator only needs control over mix settings.

In this situation, Create.Control can be left with the end-user while R1 control can be removed after the initial commissioning. This allows the end-user to retain all the artistic control over Soundscape mix settings while protecting amplifier settings and one-time tuning decisions.



3. Getting started

3.1. Installation

Create.Control can be downloaded for free at dbaudio.com ([here](#)).

3.2. Processor firmware

- v3.02.00 or higher is required when using Create.Control

! Using firmware before v3.02.00 may result in the processor executing a delayed response of commands from Create.Control!

3.3. System Requirements

PC

- Intel/AMD (Intel i5 3rd generation or higher)
- Win 10 (64 Bit) or higher

Mac

- Apple Silicon or Intel (i5 or i7 3rd generation or higher) with macOS 12.0 or higher

Ethernet Network

1 Gbit or faster, cabled ethernet connection.

WiFi is possible, but not recommended.

RAM

8 GB minimum (16 GB recommended)

Graphics

One of the driver capabilities below must be met:

- **OpenGL:** Version 3.0 or higher; however, version 3.3 or higher is strongly recommended
- **OpenGL ES:** Version 2.0 or higher; version 3.0 or higher is strongly recommended
- **Direct3D:** Version 11.1 or 12
- **Vulkan:** Version 1.0 or higher
- **Metal:** Version 1.2 or higher (applicable for macOS only)

Disk Space - 1GB

Screen Resolution - 1280 x 800 or higher

3.4. Create.Control's preferences

The Preferences are where you can change some global settings. To access it, click the hamburger menu ☰ in the top left corner of the screen, then click **Preferences**. You can also open the Preferences window using the shortcut **Ctrl ,** (Win) / **Cmd ,** (Mac).

3.4.1. Color palette

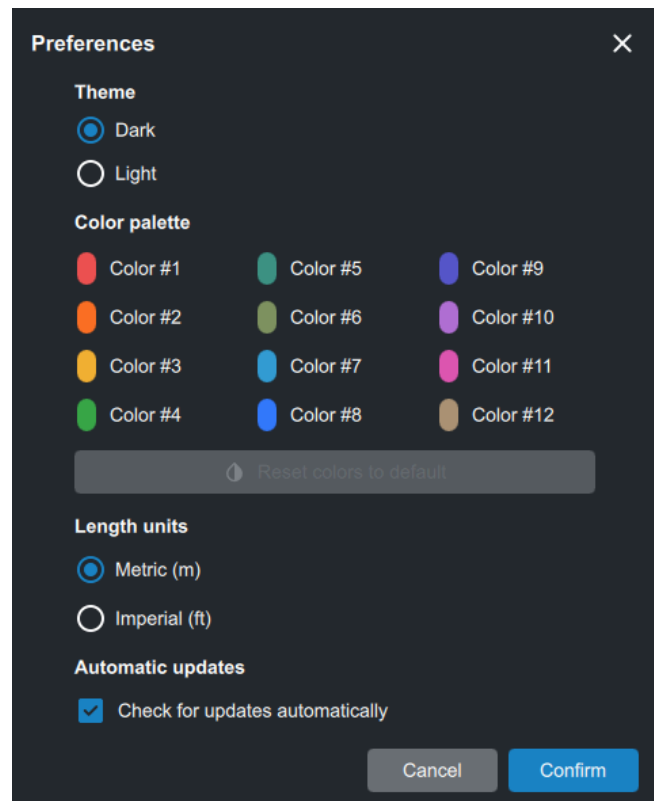
Create.Control provides you with the ability to color Sound Objects to easily identify them. By default, 12 Sound Object colors are preselected for you. If you wish to customize these 12 colors, an OS color-picker is available to reassign a new color to all 12 options. When the colors are changed they are saved to the application settings, but not to the project. This means that if you open a project on another computer with a different color scheme, the objects will use the color scheme of the Create.Control application on that computer, not as you saw it on your computer. Therefore, it is generally recommended to leave the colors in the default settings.

3.4.2. Length units

By default, Create.Control will show measurements in Metric (m), but from this menu you can switch to Imperial (ft). Now you can instantly decide if you want to do a show in the USA or anywhere else in the world.

3.4.3. Updates

When active, the *Check for updates automatically* function will check for new Create.Control updates upon opening the application. When this is disabled, Create.Control will not automatically check for updates. However, you can still manually check for updates by using the *Check for updates...* option from the Hamburger menu.



3.5. Keyboard shortcuts

Upon initial release, Create.Control supports a limited number of keyboard shortcuts.

Category	Action	Windows Shortcut	Mac Shortcut
General	Create new project	CTRL+N	CMD+N
General	Open project...	CTRL+O	CMD+O
General	Save project	CTRL+S	CMD+S
General	Save project as...	CTRL+SHIFT+S	CMD+SHIFT+S
General	Import DBPR	CTRL+I	CMD+I
General	Quit	Ctrl+Q	CMD+Q
General	Preferences...	CTRL+,	CMD+,
Help	Help	F1	F1
Sound objects list	Jump to next 'sound object name' cell and enter editing	Tab	Tab
Sound objects list	Discard changes and exit editing 'sound object name' cell	ESC	ESC
Snapshots list	Jump to next 'snapshot name' cell and enter editing	Tab	Tab
Snapshots list	Discard changes and exit 'snapshot name' cell editing	ESC	ESC
Animations list	Jump to next 'animation name' cell and enter editing	Tab	Tab
Animations list	Discard changes and exit 'animation name' cell editing	ESC	ESC
Animation parameters panel	Jump to next offset % value and enter editing	ESC	ESC
Animation parameters panel	Discard changes and exit offset % value editing	Tab	Tab
Animation trajectory	Add bezier points	CTRL + right mouse click	CMD+right mouse click
En-Space view gain parameters	Jump to next value and enter editing	ESC	ESC
En-Space view gain parameters	Discard changes and exit value editing	Tab	Tab
Project scaling parameters	Jump to next value and enter editing	ESC	ESC
Project scaling parameters	Discard changes and exit value editing	Tab	Tab

4. Create.Control Concepts

This section introduces the main concepts of Create.Control. We recommend reading this section early in your Soundscape career, as a solid understanding of this application's basic principles will help you fully exploit its potential for your Soundscape mixing and operation.

4.1. General

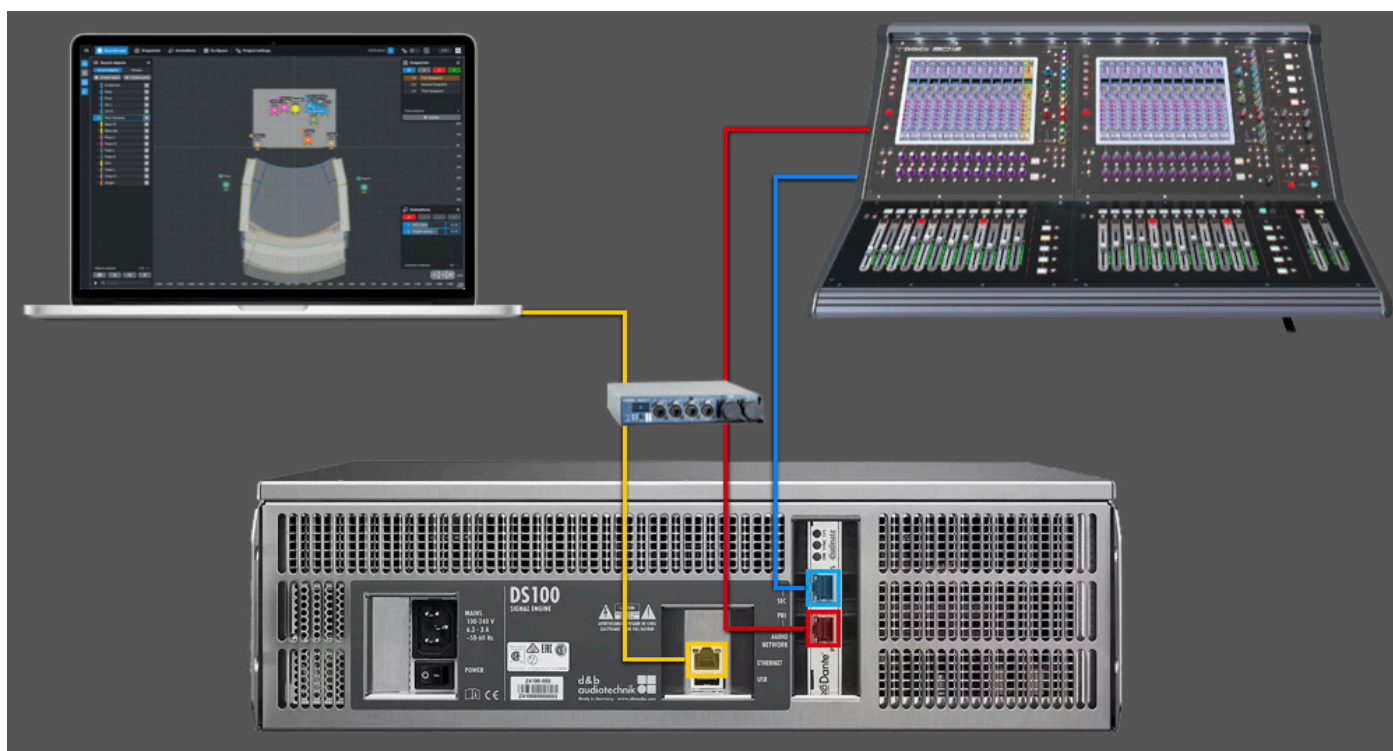
Create.Control can be used both offline for pre-production (*Create*) and connected to a Soundscape processor—DS100 or DS100M (*Control*).

During live show control, Create.Control can be used simultaneously in conjunction with another computer running d&b's R1 Remote Control software (download [here](#)). Where R1 has the ability to control d&b speakers, amps, and Soundscape processors, Create.Control only controls the Soundscape processor, allowing a division of labor between the System engineer using R1 and a mix and spatialization engineer using Create.Control.

4.2. Connecting to a Soundscape processor

4.2.1. Audio Routing

Create.Control does not route any audio through it, rather it controls the input settings for a Soundscape processor by communicating directly to it via the OCA protocol over a standard ethernet connection. This way you can simultaneously utilize a mixing console for the audio and Create.Control for the spatialization. In this case, a mixing console can also utilize Soundscape control while Create.Control and/or R1 are also online. More information regarding third-party integrations are within the Soundscape Guide Book, located [here](#).



4.2.2. Network behavior

Create.Control works on the OCA protocol, just like R1, DS100 processors, and d&b amplifiers. Because of this, it can also be installed alongside OSC-native applications like QLab, or DAW plugins.

Create.Control can run within a network that includes other traffic such as Dante or Milan as long as all switches and infrastructure can accommodate 1Gbps bandwidth. Or, control and Dante networks can be physically separated but this is not generally required.

Note: More information on the OCA protocol can be found [here](#).

4.2.3. Push/pull behavior

Push behavior

In order to push your pre-programmed show file to the Soundscape processor, you must first recall a [snapshot](#).

! Important: In order to reset your objects when connecting to a Soundscape processor, you *must* have at least one snapshot saved.

Pull behavior

When Create.Control is connected to a Soundscape processor, all data will be pulled (recalled via network connection) from the processor. This includes the following parameters:

- En-Space parameters such as position, spread, En-Space send, delay mode
- En-Space master settings like room selection, predelay factor, rear level, and zone send levels.

This behavior is carefully considered to include situations where a user may have to restart the control computer during an event without disturbing any of the active settings.

4.3. Positioning mechanics

Soundscape is based on a Cartesian coordinate system (X/Y axis) which allows the user to place a sound object to represent a real-world performer position. This is not possible with spatial systems that utilize a polar coordinate system (pan/distance) which places objects around an egocentric view in a user-interface that is abstracted from the actual performance space.

Positioning in Create.Control can be done offline, without connection to a processor, and without any knowledge of the system configuration. In this case, all positioning choices are made in the abstract. That is to say, positions are relative to each other with an assumed scale. Once Create.Control is connected to a processor, the pre-programmed positions can be re-scaled on the fly, making it very easy to adapt the offline positions to the real-world positions for the entire show file.

The scaling mechanism within Create.Control is also abstract, meaning that you are presented with a 10m x 10m resizable scaling box displayed on top of the active object positions. The scaling box can be moved, resized, or asymmetrically stretched to modify all existing automation, even while the show is running. More information on how to re-scale your Create.Control project can be found within the [Project Scaling](#) section.

4.3.1. Point-of-origin

For those already familiar with the d&b workflow, the *Point-of-origin* will not be a new concept. The Point-of-origin is specified by the user in ArrayCalc for the .dbpr file used to model the speaker deployment within the venue. Most commonly, the point-of-origin will be the front/center edge of the stage but this is the decision of the ArrayCalc files author. The point-of-origin then defines the 0,0 position for the grid in the Viewport. By default, Create.Control sets the project's point-of-origin at the front/center edge of the example venue. However, when importing from a .dbpr this will be changed to the point-of-origin as set in ArrayCalc for that system design file.

There are two other places in Create.Control where a point-of-origin is relevant, the Animation editor, and the Project scaling. In the Animation editor, the "center" of an animation is defined as its origin, and this is what is adjusted when changing the *Position* parameters. This is simply important to differentiate the "origin" of the animation and its starting point. In the Project scaling page, the point-of-origin can be adjusted via the *Origin* value. This is helpful if a .dbpr has been imported and the point-of-origin has moved as defined by the file. Here you can simply reposition the Create.Control project Origin to line up with the point-of-origin as defined by the imported .dbpr.

Create.Control does not adhere to coordinate mapping or positioning planes as does other controllers such as QLab or console integration. Furthermore, a Create.Control project can have its point of origin changed easily, at any time, even while a show is running by using the [Project Scaling](#) functionality.

4.4. .dbcc project file

When saving your Create.Control project, the file will save the number, name, and color of objects, number, name, ID, timecode, and all other parameters within a snapshot, and the number, name, parameters, and object attachments for animations in a lightweight .dbcc file. This file can be easily transported between systems to share status, especially when two separate computers are running Create.Control in one show.

!! Important: Create.Control does *not* save your object positions or parameters outside of Snapshots. This is because the system is designed to read the parameters from the connected Soundscape processor until a snapshot is recalled. Therefore, we highly suggest you create a snapshot as soon as you have created, and positioned, all of the sound objects for your project.

Without a snapshot saved, Create.Control will only save the following information:

- Object list (including names and colors)
- Object groups (including names and colors)
- Venue imported from .dbpr file
- Animations (if created)

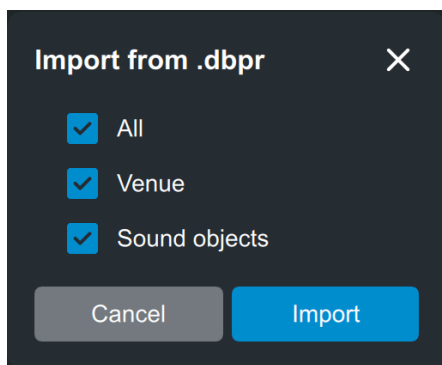
- Application preferences
- Project settings
 - Control patch
 - Timecode input/output, frame rate
 - Processor configuration (if previously configured)
 - Project scaling

4.4.1. .dbcc vs. .dbpr

The .dbcc and .dbpr files are separate file types and are not cross compatible. The dbcc file can only be opened by Create.Control whereas the .dbpr file is initially started in ArrayCalc and later opened in R1 for show operation. This .dbpr file can be imported into Create.Control to provide helpful time-saving and usability assets, such as number of objects with names, positioning and listening planes.

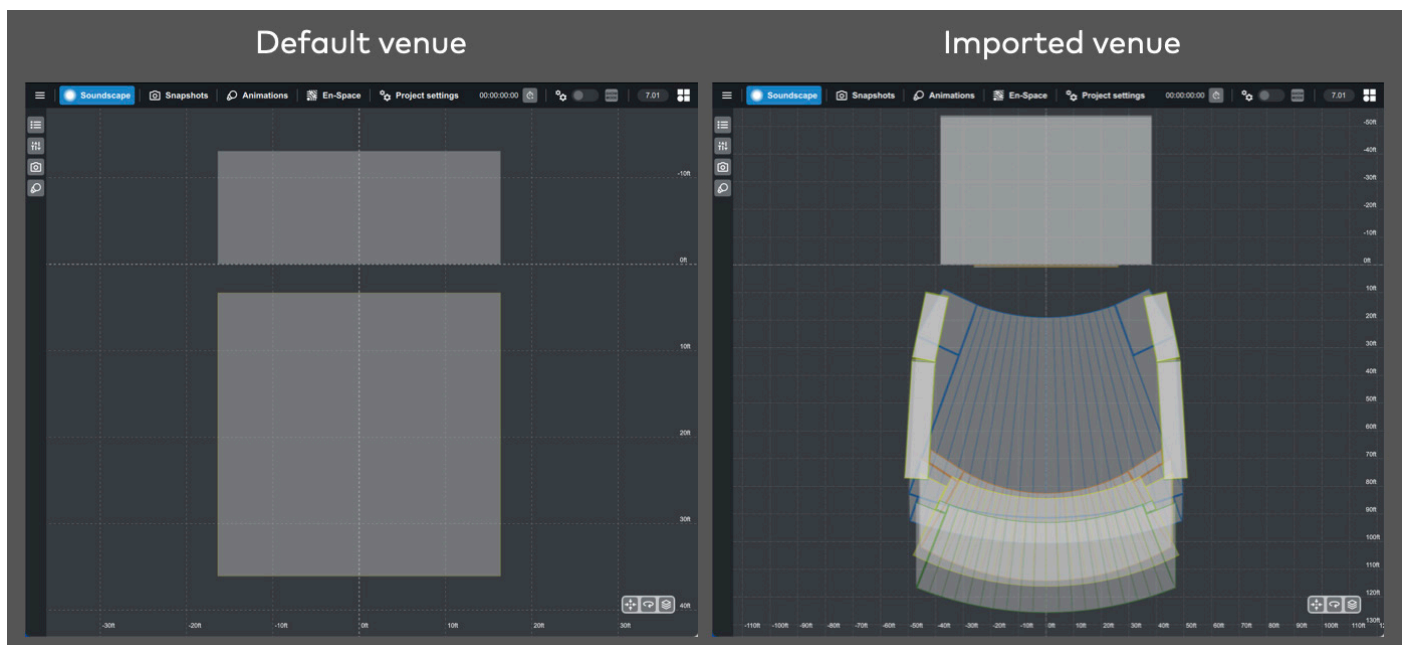
4.4.2. Importing a .dbpr file

A .dbpr file is required for the programming of the Soundscape processor as it contains required information such as speaker positions, function group behaviors, and channel programming. This file is compatible with both ArrayCalc and R1 and is used during the commissioning of the system. The commissioning process is generally handled by the provider of the sound system, such as the integrator or rental company.



While importing a .dbpr file into Create.Control is optional, importing it can allow for the fast and easy viewing of the following attributes:

- Object (i.e., channel) quantities and names
- Venue geometry for visual-aid (listening planes & positioning planes, shown below)



Importing a .dbpr file does not change the audio behavior, but does lend valuable visual indications for object positioning. The .dbpr file can be loaded when on-site, or before-hand for offline show preproduction. This feature can be found by clicking the hamburger menu  > **Import from dbpr**, or using the keyboard shortcut **Cmd i** on macOS, or **Ctrl i** on Windows.

Tip: The loaded .dbpr file does not actually have to be from the file used of system deployment. A separate .dbpr file can be created exclusively for the use of visual aid with Create.Control. In this scenario, the venue geometry can be customized for the needs of the Create.Control operator and the file does not need to be populated with speakers, Soundscape programming, device patching or other information. Alternatively, feel free to use one of the example projects provided within ArrayCalc. Simply open an example project, save it to your computer, then import it into Create.Control. This is helpful for imagining a venue during offline programming or for demonstration purposes when no real venue exists.

4.5. Autosave

Create.Control will continually monitor if a change has been made to the project. If a change has been made within the last minute, an *Autosave* will be created. Any change that would be stored in the .dbcc file will trigger the function and be included in the autosave. Create.Control will store a maximum of 5 autosaves in cache.

Note: Because sound object parameters such as position, level, En-Space send, spread, and delay mode, are *not* stored in the .dbcc file (without a snapshot) they *will not* trigger an autosave. It is recommended that if you have reached a point where all levels and positions are set as desired that you create a snapshot to store the settings *and* trigger an autosave.

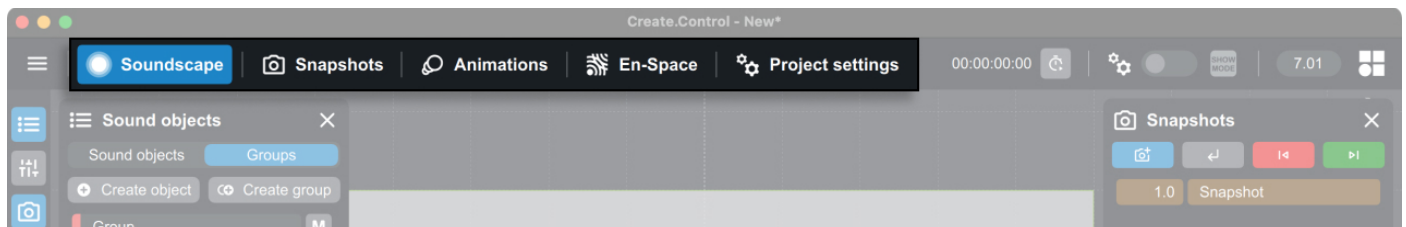
The autosave filename structure is YYYY_MO_DD_HH_MM_SS or, date and time values from largest to smallest. To load an autosave, simply click the hamburger menu ≡ > **Autosaves** > **select the desired autosave**.

! Important: Loading from the Autosave menu will *not* trigger the unsaved changes pop-up, but will rather instantaneously load the autosave. If you have loaded an autosave in error, simply load the most recent autosave as only one minute or less of progress may have been lost.

In the unlikely event of a complete software or system failure, and the autosaves are no longer visible from within the application, check the following folder location on your hard drive for the autosaved .dbcc files.

- **macOS:** /Users/username/Library/Application Support/Create.Control/Autosaves
- **Windows:** username/AppData/Roaming/Create.Control/Autosaves/

4.6. Views Overview



Create.Control has several different views which are focused on handling specific portions of a Soundscape show. Below are a very brief overview of the primary functions of those views. Please see the view's respective chapters for an in-depth guide to all the functions of that view.

4.6.1. Soundscape View

The [Soundscape view](#) is likely where you will spend most of your time in Create.Control. This view is perfect for creating, organizing, and positioning your sound objects, as well as triggering Snapshots and Animations.

4.6.2. Snapshots View

For advanced show control, the [Snapshots view](#) will be your best friend. This view is a table of all of the data that is contained within your Create.Control project and this view is where you manage that data. You can enable or disable the recall of specific parameters for individual or all sound objects. Here you can also change your En-Space room settings permitting your Soundscape processor has the En-Space license installed.

4.6.3. Animations View

The [Animations view](#) is used to create animations and attach them to Snapshots. Animations can also be fired manually from the Soundscape view. Therefore, if you intend to trigger Animations from Snapshots, it is recommend that you first create several of the snapshots you will use within your show then attach your created Animations to them. Previously created animations can also be attached to new snapshots.

4.6.4. En-Space View

The [En-Space view](#) is used for setting global En-Space settings for your show. If you decide that you want those settings to change over the duration of your show, simply create a snapshot with the current En-Space settings, then change the En-Space settings to your desired change and create a second snapshot.

4.6.5. Project settings View

The [Project settings view](#) is where you can scramble patch your objects to Soundscape processor inputs, connect to a Soundscape processor, configure Timecode settings, or scale your show. Likely you will come to this page once to connect, scale, and re-patch your show and then leave it until the next one.

4.7. Viewport

Some of the views (Soundscape, Animations, and [Scaling](#) in the Project Settings) will contain a *Viewport*. The Viewport is where you can see the actively running state of the Soundscape processor, viewing the speaker and sound object positions and, if a .dbpr has been imported, the venue and positioning planes. Here you can click-and-drag to move on the 2D plane, scroll to zoom in and out, and select and position your objects, groups, animations, and project scaling. Each time the Viewport is visible a set of helper tools are provided to assist with navigation.

4.7.1. Viewport helpers

4.7.1.1. Re-center Viewport



Selecting this will center the positioning view to Create Controls center point of origin and reset the zoom to cover an area of approximately 26m (depending on screen size). This function can be helpful if you have scrolled or zoomed out too far from the action.

4.7.1.2. Rotate Viewport



The positioning view can be rotated in 90° increments which is helpful if the mix position is moved to an unexpected part of the venue and the operators visual perspective of the show has changed. This setting has no affect on the sound of the event, only the visualization within Create.Control.

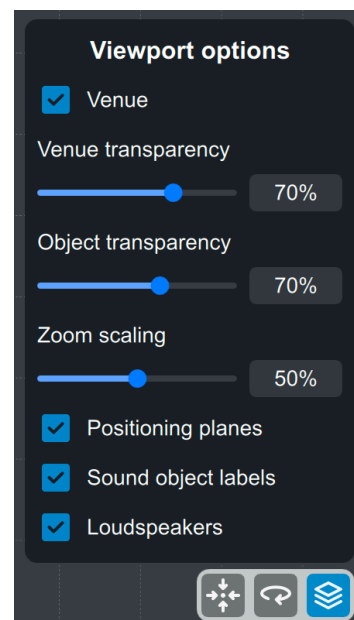
Tip: For those of you well-versed in ArrayCalc, this function may be very helpful for positioning your Viewport in the same way you're used to seeing it in there.

4.7.1.3. Viewport options

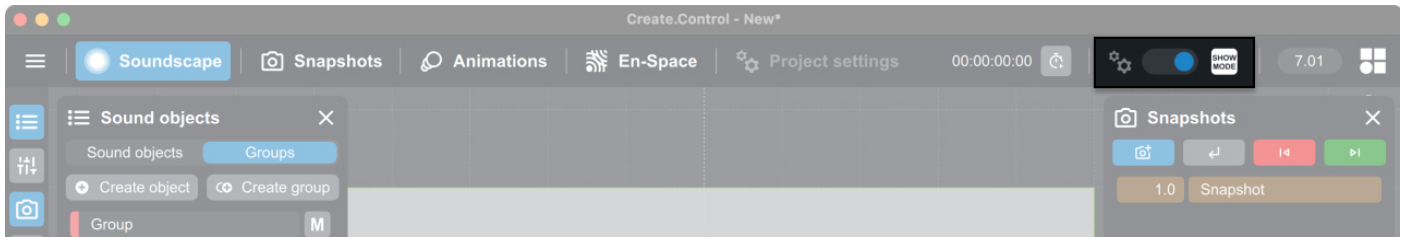


This button opens a series of checkboxes so the operator can decide what types of elements are visible on the positioning view.

- **Venue:** pertain to listening planes, obstacles, and structures which have been imported via a .dbpr file or as part of the default venue.
- **Venue transparency:** controls the level of transparency of the venue in the background, with 100% being invisible and 0% being fully opaque.
- **Zoom scaling:** Controls how the threshold at which sound objects and speakers will scale when zooming in and out of the viewport. With 100%, the objects will stay the same size when zooming. With 0%, objects will shrink and grow when zooming.
- **Positioning planes:** Shows/hides any positioning planes in the project. The example venue only contains one over the stage, however if a .dbpr file has been imported there may be multiple positioning planes.
- **Sound object labels:** Shows/hides the sound object name and delay mode icon.
- **Loudspeakers:** Shows/hides any loudspeaker positions read from the connected Soundscape processor.



4.8. Show mode



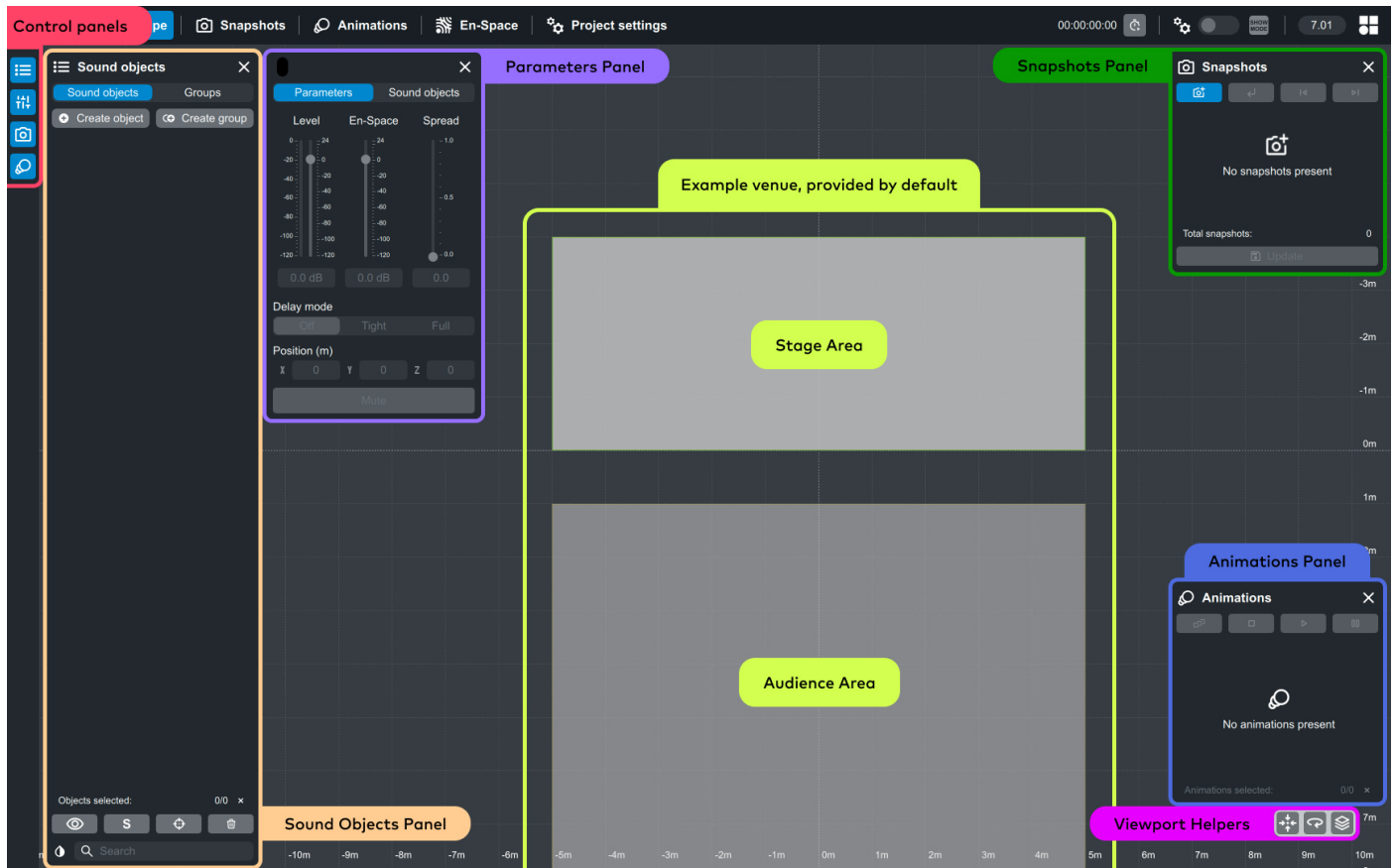
Show mode is used when it's time to go live with the show. In Show mode, several destructive and potentially career ending capabilities are disabled.

Here is a list of all functions which are disabled:

- **Project settings** - the entire view is disabled
- **Delete objects, groups, animations, and snapshots**
- **Solo-in-place**
- **Snapshot Propagate mode**
- Many Hamburger menu options
 - **New project**
 - **Open project...**
 - **Recent projects**
 - Opening project from **Autosaves**
 - **Import from .dbpr...**
 - **Check for updates...**
 - **Quit Create.Control**

5. Soundscape view

The *Soundscape view* is the first view you see when you open Create.Control and it is likely where you will run your show.



5.1. Sound objects panel



The *Sound objects panel* is open by default when opening Create.Control. This panel is used to create, name, select or multi-select, mute, visually solo, target, search for, and delete sound objects or groups. Here you can also solo-in-place any selected sound object(s). The Sound objects panel contains two tabs

5.1.1. Sound objects tab

The *Sound objects* tab in the Sound objects panel displays the list of sound objects within your project. Directly within this list you can click to select a single object. To select a range of objects, first click the first object in the range then hold the **Shift** key and click the last object in the range. To select multiple objects which are not next to one another in the list hold the **Cmd** (Mac) or **Ctrl** (PC) key while selecting any number of objects.

To rename an object simply double-click its name in the list to highlight the text and simply type the name you'd like. Press the **Enter** or **Return** key or click away to commit the name change.

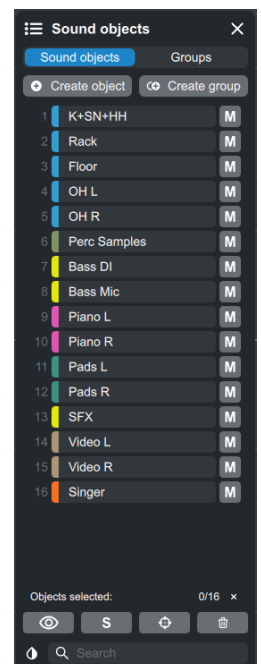
Note: Many special characters are not able to be entered into the name of a sound object. Some special characters which are supported are `/ * - + ? ! @ . : #`

Each object within the list is also an input meter, which will reflect the input level of each processor channel, when online. The meter in the list is pre-fader, pre-mute.



Next to each object is the *mute* button indicated by a grey M. The mute buttons are network controllers for the processor's input mute function and will mute the processor input to all destinations, regardless of En-Space outputs or matrix outputs.

While the objects have numbers which are automatically assigned in sequence, beginning at one, the actual object to be controlled within the processor does not have to be the same channel. This is because all Create.Control messages can be retargeted to processor inputs quickly and easily within the [Project Setup tab: control patch panel](#).



5.1.2. Groups tab

The *Groups tab* displays a list of all groups in the project. If no groups exist, this list will be blank.

Groups allows for fast control over a number of objects. The functionality of a group is exactly the same as multi-selecting objects, just with less clicks required for faster operation. This is helpful in situations where you want to adjust the parameters of an entire section of musicians or actors quickly.

 While the Groups tab is selected, and a Group is selected, the icon on the Parameters panel will change to the Group icon (seen left), indicating that any parameter changes will apply to the group.

5.1.3. Create object

When clicking the *Create object* button in Create.Control, you are presented with with three options

Objects can be added to a project in two ways:

1. Add sound objects manually using the *Create object* button
2. [Import a .dbpr file](#) which contains the defined inputs

Note: The list of objects can be modified after import, if needed.

Create.Control supports up to 128 objects. However, if you are using a DS100 S or L, only 64 of the available 128 objects are able to be rendered.

Regardless of how many objects exist within your Create.Control project, all of their parameters can be freely assigned to processor channels once onsite. This allows you to decide which parts of the show file should be conformed to the available DSP.

5.1.3.1. Object name

Specifying the object name within Create.Control will not affect the name of any processor channels and is simply for the benefit of whomever is using Create.Control. However, naming will also enable the object search function to filter objects by name. Additionally, object names can be imported from a .dbpr file, if the file contains that information.

5.1.3.2. Object color

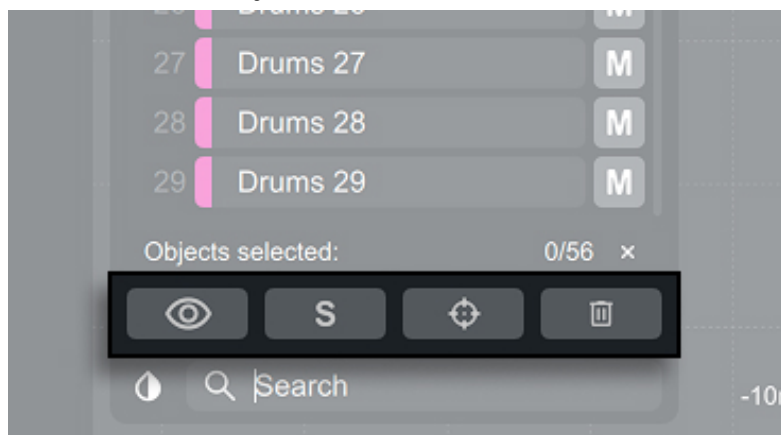
Coloring objects will help to visually identify similar objects, or groups of objects. This also allows for the search function to filter objects by color.

Object colors within Create.Control does not affect object colors within R1.

5.1.4. Create group

The *Create group* button will create a group of the currently selected objects. If not objects are selected then an empty group will be created and sound objects will need to be assigned to it. Once the Group has been created, the Sound objects panel will automatically switch the Groups tab.

5.1.5. Sound objects Toolbar



The *Sound objects Toolbar* at the bottom of the sound object list is a group of buttons to accomplish the following:

5.1.5.1. Visual solo

 When enabled, the *Visual solo* mode keeps all selected objects visually opaque and makes all non-selected objects partially transparent. This is to help you quickly identify where the selected object(s) are located. While this mode is enabled, any other object(s) selected will become opaque and the previously selected object(s) will become partially transparent, allowing you to quickly navigate throughout your project, even while the event is running. This mode must be disabled by clicking the icon again to return to viewing all objects as opaque.

5.1.5.2. Solo in place

 While the *Solo in place* is enabled, only selected sound objects are unmuted. All non-selected objects will be muted.

Note: Objects that were muted before Solo in place was activated will remain muted when the mode is disabled.

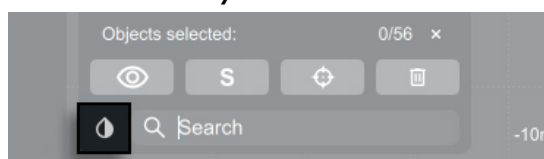
5.1.5.3. Target mode

 This visual mode will control the zoom of the Soundscape view based on which object(s) are selected. The Soundscape view's zoom functionality will automatically zoom in or out to include the positions of selected objects.

5.1.5.4. Delete object(s)

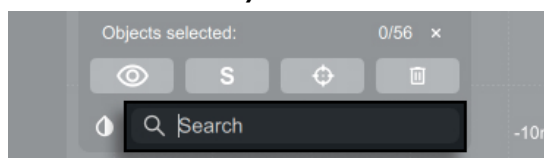
 The *Delete object(s)* button will delete all currently selected objects from the Sound objects list. The objects' data will also be deleted from any relevant snapshots.

5.1.6. Filter by color



This function allows you to filter the Sound objects list by their color. Simply click this button, select one of the 12 color options, and all other objects will be hidden. To remove the filter, click the X on the right of the search bar.

5.1.7. Search by name



A classic text-based search bar. To locate a sound object by name from the list, simply type the name in the box and it will filter the Sound objects list based on the text entered into the search bar. To remove the filter, click the X on the right of the search bar.

5.2. Object parameters panel

 The *Object parameters panel* allows for control over all parameters of one or more selected objects, or one group when the Groups tab is selected. This panel can be shown, even if the object list is not visible. If multiple objects are selected, you are given the choice between relative or absolute parameter changes. With relative changes, all objects can have a parameter changed upward or downward while maintaining any existing offsets in the values. With absolute editing, all the selected objects are forced to have matching settings as soon as that parameter is edited.

More information about the available acoustic settings for sound objects is available under the section: [Acoustic properties of sound objects](#).

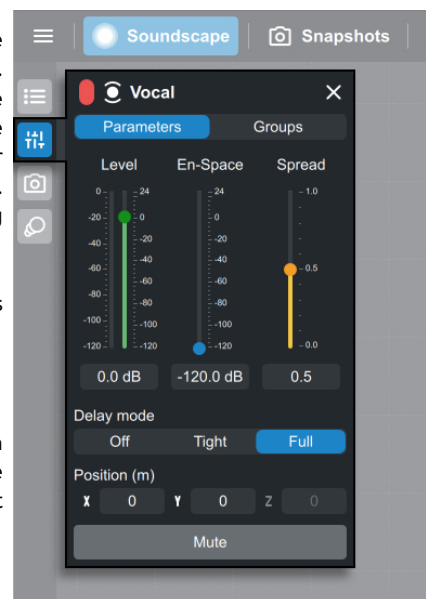
5.2.1. Level fader

The **green Level** fader is a remote control for the DS100 input level control. It can be used like a mixer fader or all Soundscape channels or can be left at 0dB if the mixing will happen at a mixing console. We recommend using it simply as an input trim for the incoming signals to the DS100.

5.2.2. En-Space (send) level fader

The **blue En-Space** send level fader is used to adjust the amount of an object, or objects, being sent to the En-Space engine. This is basically your reverb aux send.

The object will be automatically routed to En-Space inputs 1-4 based on its position within the venue. This behavior is relative to an Early Reflection plane as set by the system engineer when designing the deployment within ArrayCalc.



Note: You must have an En-Space license loaded onto your DS100 for this parameter to have any effect.

5.2.3. Spread fader

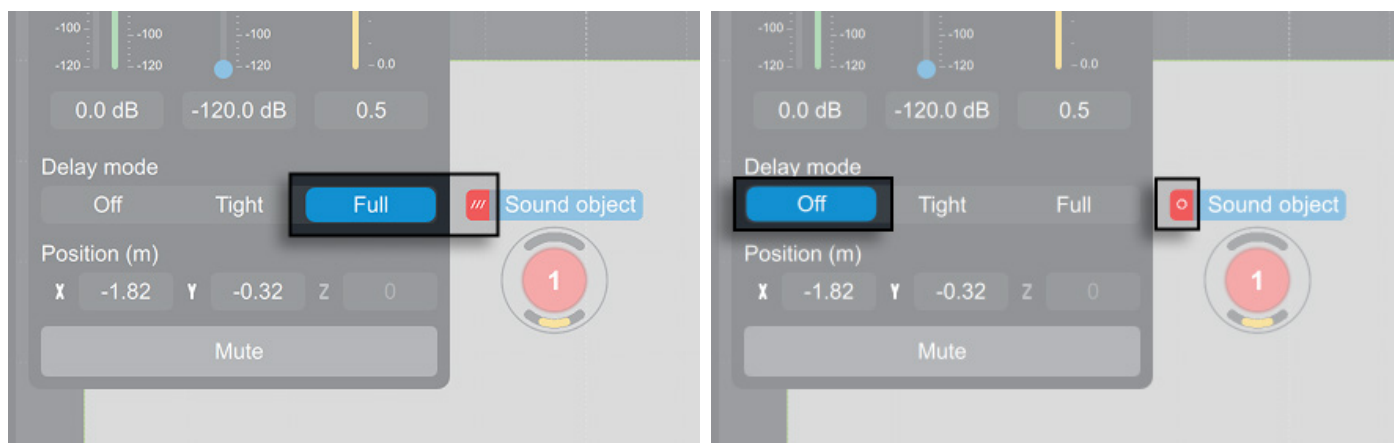
The **yellow Spread** of a sound object defines whether it is reproduced in a focused (less speakers) or wide (more speakers) way. The Spread value ranges from 0 (focused) to 1 (wide) with the default value set to 50% (0.5). The default value of 50% (0.5) is recommended for general use and does not necessarily require adjustment. For a more detailed look at the Spread function see the [Spread explained](#) section at the end of this document.

5.2.4. Delay modes

The *Delay mode* of an object changes its time behavior across the speaker deployment. This has ramifications on all speaker zones (i.e., Function groups) independently. For example, changing an object from one mode to another will change how the object is time-aligned between the mains, front fills, and outfill speaker zones. For a deep dive into Delay modes, check the [Delay modes explained](#) section.

Three Delay modes are available for sound objects: *Full*, *Off*, and *Tight*. The Delay mode can be configured individually for each object. To change an object's Delay mode, **Soundscape view > select an object > Parameters panel > Delay mode**.

When the Delay mode for an object is changed, the icon next to the object's name in the Viewport is changed to match the mode.



Delay Mode Cheat Sheet

Mode		Recommendations for use
Full	///	Recommended most applications. Especially for objects that represent a source which makes acoustic sound (vocal, drums, guitar amp, etc.).
Tight	/	Recommended for sources where the overall delay needs to be reduced. Can work well for multichannel bus-based content which is routed to multiple objects (stereo, LCR, 5.1, 7.2, etc.).
Off	○	Recommended for fast-moving sound objects if artifacts can be heard when in Full mode. This mode is automatically used for objects which are in front of the speaker system. Therefore, this mode can be preemptively selected which avoids the sound of it changing to Off mode automatically during the transition from behind to in-front of speakers.

Tip: When listening at mix position, which is typically in the center of the venue, it may sound like Off mode provides more impact or presence. This is the typical result of any speaker system without varying delay times applied to speakers: more energy is focused towards the center of the room (aka: power alley). In other words, while more impact is perceived in the middle of the venue, less impact will be perceived in all other areas of the venue. Furthermore, speakers zones such as outfills and front fills may now sound too loud and lack transparency.

5.2.5. Position

Positional coordinates can be set either by numeric value or simply by dragging an object(s) to the desired location. The coordinates are based on 'absolute' positions (meters or feet from a point of origin).

The positioning content of the show file can quickly and easily be adapted once the actual size of the stage and venue is known, perhaps when onsite.

Note: The Z-axis is present but disabled, just as seen in R1 and ArrayCalc.

5.2.6. Mute

The *Mute* button will mute the currently selected object. If an object is muted, its mute icon in the sound objects list will turn red. If multiple objects are selected the Mute button will change to read *Mute all* and clicking it will mute all of the currently selected objects. In the event that one or more of the selected objects is already muted then the button will split in two, *Unmute all* and *Mute all*. Upon clicking either of these two buttons the desired effect will be applied to all selected objects, regardless of the selected Change mode, and the button will return to a single button.

Note: In the Groups tab, the Mute button will be disabled if the group contains no sound objects.

5.2.7. Change mode

When multiple objects are selected a new option is presented named *Change mode*. Change mode has two options—*Relative* and *Absolute*.

5.2.7.1. Relative

By default the Change mode is set to *Relative*. This is because in most cases you will want to use this change mode as it retains the relative values between all objects selected. Meaning, if you want to bring the Level down 2dB for all the selected objects, it's as simple as typing into the Level field -2dB and each object's Level will be reduced by 2dB.

Note: Delay mode does not support Relative adjustments, it will always function as an Absolute change.

5.2.7.2. Absolute

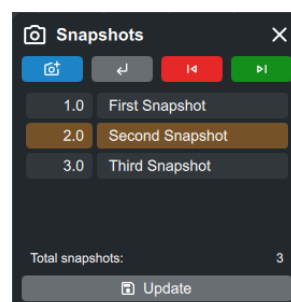
The *Absolute* Change mode will set the value for all selected objects to whatever value is set while this mode is active. For example, if you want to set the Spread for all selected objects 1.0, simply drag the fader to 1.0 or type the value into the text field below and all selected objects, regardless of what their previous value was, will be set to 1.0.

5.3. Snapshots panel



The *Snapshots panel* allows you to create new Snapshots, recall a selected Snapshot, monitor which Snapshot is currently active, advance to the next or previous Snapshot, and store the current system state on the currently selected Snapshot, without having to switch views. A newly created snapshot will be added to the end of the list with a new major ID number (before the decimal). The **Store** button will update the selected snapshot with the currently active parameters. For how to customize your Snapshots check the [Snapshots View](#) section.

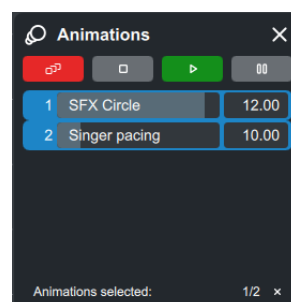
Note: The maximum number of Snapshots available are 999.00



5.4. Animations panel



The *Animations panel* allows you to monitor, trigger, pause, stop, and stop all animations without switching to the [Animations view](#). The red button will stop all active animations while the stop and pause buttons will only stop a selected cue.



6. Snapshots view

When connected to a Soundscape processor, Create.Control will read all object parameters. For this reason, at least one snapshot is required for a user to recall their object settings.

YouTube tutorial videos describing snapshots can be found below:

- Basic Snapshot Control, can be found [here](#)
- Advanced Snapshot Control, can be found [here](#)

Snapshot list, timecode & fade time

List of all object parameters stored within the selected snapshot and their recall-scope settings

Animations attached to this snapshot

En-Space master settings saved within the selected snapshot

6.1. Snapshot navigation

6.1.1. Create button

This button will create a new Snapshot based on the currently active parameters.

6.1.2. Recall button

The Recall button will recall all of the enabled parameters within the selected Snapshot.

6.1.3. Previous button

The Previous button will activate the Snapshot above the currently active Snapshot in the Snapshots list. If the first Snapshot in the list is currently active, the Previous button will not enact any function when clicked. Additionally, if no Snapshot has been recalled, the button will be inactive.

6.1.4. Next button

The Next button will activate the Snapshot below the currently active Snapshot in the Snapshots list. If the last Snapshot in the list is currently active, the Next button will not do anything when clicked. Additionally, if no Snapshot has been recalled, the button will be inactive.

6.2. Snapshots list

6.2.1. Snapshot ID

When snapshots are created, they are given a sequential ID number (1.0, 2.0, 3.0 etc). However, the ID can be changed at a later time by double-clicking and entering a new value. The list of snapshots will automatically reorder to always show snapshots in numeric order.

Renumbering snapshot IDs is the easiest way to reorder snapshots.

6.2.2. Snapshot name

This name will be shown on the Soundscape view if the Snapshots panel is exposed.

6.2.3. Timecode

Snapshots can be triggered via MTC timecode (supports various frame rates). The entry here in the snapshots tab allows you to define what timecode value will trigger the recall of the snapshots.

The format for timecode is standardized as HH:MM:SS:FF (hours, minutes, seconds, frames).

Timecode does not have to be continuously running for snapshot recall to work. Even if timecode only appears for a split-second, Create.Control will see the messages and recall a snapshot, if programmed to do so. In other words, it is common for timecode to run in snippets during a live event. Additionally, non-linear cuing systems (such as QLab) can send a short snippet of timecode, which is fully supported.

Example: If a band reorders their setlist, either the timecode set in the Create.Control Snapshots could be adjusted, or the associated snippets of timecode playback could be reordered, to make the required adjustment to the setlist.

See the [Timecode page](#) section for information on synchronizing Create.Control to external timecode playback.

6.2.4. Timecode on/off button

The icon next to the timecode value allows for individual snapshots to be disabled from following timecode triggers. There is also a global disable in the upper-right corner of Create.Control if the operator needs to stop timecode triggering (as is common in rehearsal environments the other departments are absent-mindedly sending timecode as they test their systems).

6.2.5. Crossfade time

An amount of cross fade time can be set for each snapshot that will fade all parameters to the desired settings. This includes object positions, En-Space sends, spread, etc. The snapshot will interpolate all current settings and then fade to the settings within the snapshot. In other other words, object parameters will never jump unexpectedly unless a snapshots fade time is set to zero. Absolute values such as delay mode or mute will change instantly on recall regardless of the preset cross fade time.

The format is xx.xx (seconds.milliseconds) with a maximum value available of 99.99, or approximately 1 minute 40 seconds of maximum fade time.

6.2.6. Animations indicator

This indicator lets you know if the respective Snapshot contains an Animation or multiple Animations which will be recalled with it. If no animations are set to trigger with the snapshot, the space is left blank.

6.3. Snapshots toolbar

The *Snapshots Toolbar* contains several additional helpful functions and modes to help you with taking full advantage of the Snapshot functionality within Create.Control.

6.3.1. Store button

The *Store button* will overwrite the settings of the selected Snapshot with the current state of the system.

6.3.2. Propagate mode button

The *Propagate mode*, when active, allows you to select parameters from the selected Snapshot, and copy them over to numerous other Snapshots. This can be useful if a static object for the entire show needs to be repositioned slightly. Rather than going to each Snapshot individually and typing in the new value, you can simply select the value to propagate, then select all the snapshots you want to propagate it to, then click Propagate again, then click Apply.

Note: The Update mode button is not active unless at least two Snapshots exist in the project.

6.3.3. Duplicate button

The *Duplicate button* will create a duplicate of the currently selected Snapshot below.

Note: the duplicated snapshot will maintain the primary ID number and will increase the secondary ID. For example if you duplicate Snapshot with ID 5.0, the duplicate will be ID 5.1.

6.3.4. Delete button

The *Delete button* will delete the currently selected Snapshot.

Note: There is no warning giving you a chance to cancel this action and there is no undo function in the application. Save often and use this feature with caution. If you have accidentally deleted an important Snapshot you can revert to an autosave state by clicking the **hamburger menu > Autosave > select the most recent Autosave**.

6.4. Recall scope

Shown within the "Sound objects" grid is every parameter for every sound object

Note: Sound objects added after snapshot creation will be added to the snapshot with all default parameters. Be careful!... this can cause mayhem later.

6.4.1. Object parameters

All parameters for all existing objects are stored when a snapshot is created. However, you have the ability to restrict what parameters are recalled when the snapshot is activated.

Note: objects added after snapshots were made will not have any settings saved within those snapshots. All snapshots must be updated if control over the new objects is required.

6.4.2. Recall matrix

This allows you to disable which parameters for certain objects will be recalled or not. When the checkmark is present, the parameter will be recalled. When de-selected, that parameter for that sound object will not be recalled, as indicated by the value being greyed out. Additionally, the toggle at the top of the Recall matrix will disable or enable *all* values in the Recall matrix for *all* objects.

6.4.3. Animations recall

The *Animations recall* allows you to enable or disable all animation recalls for the selected Snapshot by clicking the Recall toggle switch.

If any animations have already been created, they can be added to the snapshot so that they initiate their movement for the attached objects when the snapshot is triggered. To say it another way, animations are started at the moment the snapshot is recalled, not at the end of the snapshot fade time.

To attach an Animation to a Snapshot, click the *Edit animation* button which will take you to the *Compose* tab on the [Animations page](#). Now select one of the existing snapshots and toggle the animations from the Animations list you would like to attach.

6.4.4. En-Space recall

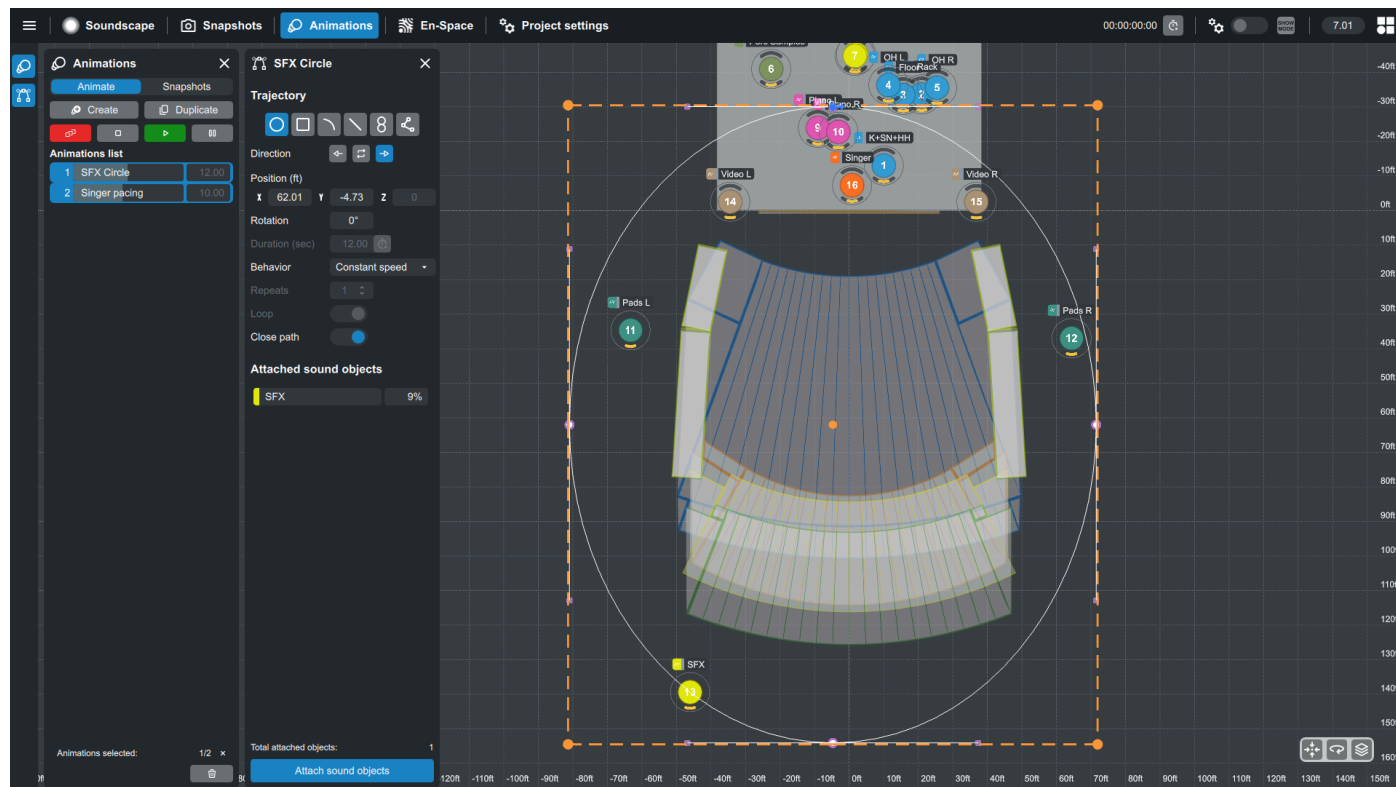
The *En-Space recall* allows you to change all of the parameters from the En-Space view from a Snapshot. To do so, simply select a Snapshot, and adjust the parameters in the En-Space recall. This will automatically update the selected snapshot with the new values. Now when triggering from different snapshots the values will be changed, including with Crossfade. To disable the En-Space recall for the selected Snapshot, simply click the Recall toggle.

Note: The En-Space Room setting and Mutes will be applied immediately after the Snapshot is triggered while the fader values will crossfade. To avoid possible audible artifacts of the En-Space room changing, it may be helpful to program the levels to fade in.

7. Animations view

The *Animations View* is used to create, adjust, and attach Animations to Snapshots. It is not used to manipulate sound object parameters, so you will not be able to select any sound objects here directly. However, because you will need to see and manipulate the animations within the viewport, the [Viewport helpers](#) exist in full in this view.

A YouTube tutorial video pertaining to Animations can be found [here](#).



7.1. Animations panel

This panel is used to Create new animations, Duplicate and Delete existing animations, Stop all, Stop, Play, and Pause animations, and attach animations to Snapshots.

7.1.1. Animate tab

The *Animate tab* is where you create and organize your animations.

7.1.1.1. Create animation button

The *Create* animation button will simply create a single animation. After clicking, you are presented with a pop-up allowing you to name the animation. Click *Create* to make an animation. To adjust the animation see the [Animation parameters panel](#) section below.

Note: The maximum number of animations available within a project is 256. If the project already contains this many animations the Create button will become disabled.

7.1.1.2. Duplicate animation button

The *Duplicate* animation button will duplicate the currently selected animation along with all of its parameters, including attached sound objects and their relative start points.

Note: The maximum number of animations available within a project is 256. If the project already contains this many animations the Create button will become disabled.

7.1.1.3. Stop all animations button

The *Stop all animations* button is quite straightforward. Clicking it will stop any currently running animations. If none are running the button will do nothing.

7.1.1.4. Stop animation button

The *Stop animation* button will stop the currently selected animation(s). If no animations are selected this button will be disabled.

7.1.1.5. Play animation button

The *Play animation* button will play the currently selected animation(s). While an animation is playing a progress bar is seen within the animation's name in the animations list. While it is playing, its trajectory and behavior can continue to be manipulated, however the Duration Repeats, and Loop options are disabled. Once the animation has completed or is stopped, those parameters can again be adjusted.

Note: An animation can not be re-triggered. To restart the animation you must first stop it, then press play again.

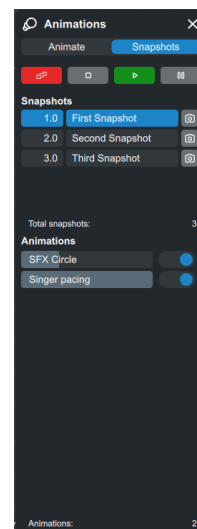
7.1.1.6. Pause animation button

The *Pause animation* button will pause playback of the currently selected animation(s). Once the Play animation button is pressed, the animation will resume from its stop point. If the currently selected animation was not playing the Pause animation button will have no effect. If no animations are selected this button will be disabled.

7.1.1.7. Animations list

Directly within this list you can click to select a single animation. To select a range of animations, first click the first object in the range then hold the **Shift** key and click the last animation in the range. To select multiple animations which are not next to one another in the list hold the **CMD** (Mac) or **Ctrl** (PC) key while selecting any number of animations.

Note: Once multiple animations are selected, all options in the Animation parameters panel are disabled.



The number to the left of the animation in the list indicates its order. Animations can be click-and-dragged to reorder them in the list.

The number to the right of the animation indicates the duration and can be modified directly here. The format is xxx.xx (seconds.milliseconds) with a maximum value for an animation is 999.99, or approximately 16 minutes and 40 seconds.

7.1.1.8. Delete animation button

The *Delete animation* button will delete the currently selected animation(s). If no animations are selected this button will be disabled.

! Important: If you accidentally delete an animation and need it, revert back to an autosave state using the hamburger menu  > **Autosave** > **select the autosave to revert to**. View the [Autosave](#) section of this manual for more information.

7.1.1.9. Snapshots tab

The *Snapshots tab* is used to attach animations to snapshots. Simply select any and all snapshots which you would like to trigger this animation when fired.

7.1.1.10. Attaching animations to snapshots

In the *Snapshots list* you will see a list of all of the Snapshots that exist in the project. The *Animations list* below displays a list of all animations in the project.

To attach an animation to a snapshot, first select the snapshot from the Snapshots list, then click the toggle next to the animation in the Animations list you would like to attach. Click the toggle again to detach.

Note: If the toggle next to an animation is **red**, this indicates that there are no sound objects attached to that animation. See the [Attaching objects to animations](#) section to resolve this.

7.1.1.11. Snapshots view button

The *Snapshots view* button will take you to the adjacent snapshot on the Snapshots view, giving you easy access to further adjust your snapshot. To return, click the *Edit animations* button in the Animations list on the right.

7.2. Animation parameters panel

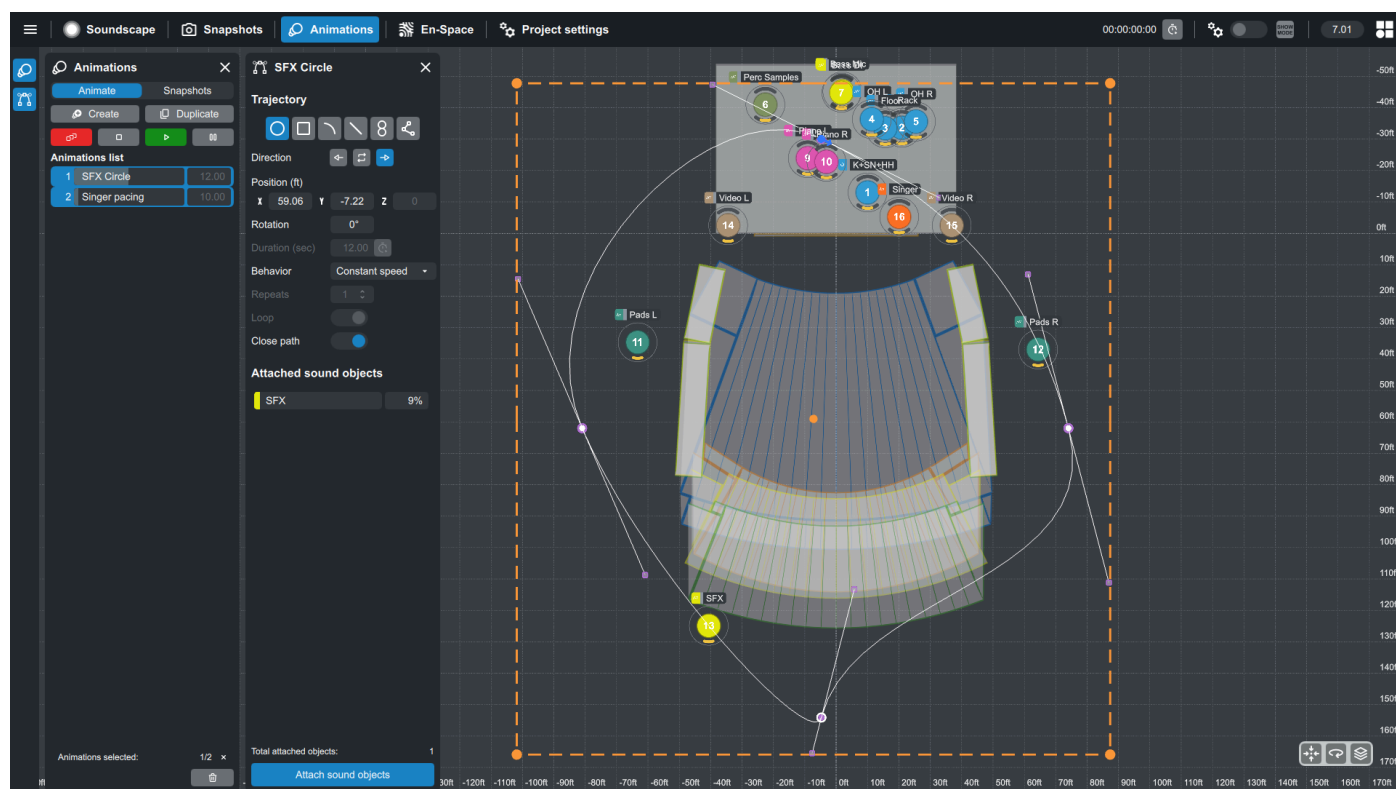
The *Animation parameters panel* is used to adjust the parameters, such as position, direction, duration, etc. of an animation.

7.2.1. Manipulating animations

The easiest way to manipulate the position and to customize the trajectory of an animation is by using the **orange** handles in the Viewport. The larger circle in the center is the origin of the trajectory and can be click-and-dragged to re-position it without resizing. The large circles in the corner will adjust the size of the trajectory in two axes. These can be accessed, even if the Animation parameters panel is closed.

The white dots with a purple outline is a *path point* which can be re-positioned. Doing so will change both the size of the trajectory and its shape. To create a new path point, hold **Cmd** and click along the path.

Trajectories are primarily based on Bézier curves (for more information on click [here](#)) and the small squares at the end of the white lines on either side of a path point are a *Bézier handle*. Moving one will adjust the positioning of the other, except for its distance from the path point. Doing so will adjust the curve of the path. If you want to control only one Bézier handle, hold the **Shift** key while dragging.



7.2.2. Trajectory

The *Trajectory* is a set of pre-defined shapes and paths for your animation. Each trajectory can be completely customized by using the path points and Bézier handles mentioned above, but provides you a jumping off point for customization, if needed.

Note: Choosing a new Trajectory will reset the Position and Rotation values, and the Close path state.

7.2.3. Direction

The *Direction* buttons allow you to choose which direction the attached objects will travel along the trajectory. The *Forward* and *Backward* options choose which direction attached objects will travel when the animation is played, with Forward being selected by default.

The *Ping-Pong* toggle in the center will cause the objects to travel the entirety of the path and then return to their starting point. With Ping-Pong active, the Forward and Backward options determine which direction the sound objects will travel first before returning to their starting point.

Note: The Ping-Pong option uses the same duration value, meaning that when disabled the objects will take the full duration to travel the entire path, and when enabled the objects will travel the path once in half the duration, then travel in the opposite direction for the other half of the duration. In other words, when Ping-Pong is enabled, objects travel the path twice as quickly, but complete the entire process in the set duration amount.

7.2.4. Position

The *Position* values determine the center point of the trajectory selector, but not necessarily a point on the trajectory itself. Using the Viewport positioning features can help drastically with positioning the trajectory overall, and the position values are most useful for the [show scaling](#) functionality.

7.2.5. Rotation

The *Rotation* function will rotate the entire trajectory around its center point. When dragging the rotation value to the left the values will range from 0 to -360 and when dragging from the right the values will range from 0 to 360.

Note: This allows you to change the start point of the trajectory for closed paths.

7.2.6. Duration

The *Duration* determines how long it will take for an object to travel the entire trajectory from start to finish.

The format is xxx.xx (seconds.milliseconds) with a maximum value for an animation is 999.99, or approximately 16 minutes and 40 seconds.

7.2.7. Behavior

The *Behavior* controls how objects with an [offset value](#) will move along the trajectory.

- **Constant speed:** Objects with an offset will travel at the same speed as those without an offset, which means they will reach the end of the trajectory before the end of the duration.
- **Constant duration:** Objects with an offset will take the same amount of time to complete the trajectory as objects without an offset, which means that all objects will reach the end of the trajectory at the same time.

Note: Objects with an offset value of 100% will not move from the start point of the trajectory.

7.2.8. Repeats

The *Repeats* value determines the number of times a sound object will travel the trajectory for the set duration before repeating the same movement again. The maximum number of repeats is 100.

Note: If the *Loop toggle* is active, the repeats become inactive as the objects will travel the trajectory indefinitely.

7.2.9. Repeat rule

The *Repeat rule* determines if attached objects will travel the trajectory indefinitely. When enabled, all attached objects will travel the trajectory as defined by the Direction and Duration, and then restart the trajectory indefinitely until the animation is stopped.

Note: If the *Loop toggle* is active, the repeats become inactive as the objects will travel the trajectory indefinitely.

7.2.10. Loop

The *Loop toggle* determines if attached objects will travel the trajectory indefinitely. When enabled, all attached objects will travel the trajectory as defined by the Direction and Duration, and then restart the trajectory indefinitely until the animation is stopped.

Note: If the *Loop toggle* is active, the repeats become inactive as the objects will travel the trajectory indefinitely.

7.2.11. Close path

The *Close path toggle* determines if the trajectory is and open or closed path. If the Close path toggle is disabled then the path will have a definite beginning and end, such as the Line or Curve trajectories. If the Close path toggle is enabled then the end points of a trajectory will be connected with a curved line.

 **Tip:** This can be a useful tool for quickly creating paths that traverse only three sides of the stage by disabling the Close path toggle on a square, for example.

7.2.12. Attached sound objects

The *Attached sound objects* list shows all sound objects which have been attached to the selected animation and their offset value.

Note: This section is disabled if multiple animations are selected.

7.2.12.1. Offset value

The *Offset value* determines at what percentage of the trajectory the sound object should start its movement. For example, in a circle with the start point at the top, a value of 50% will have an object's starting point move to the bottom of the circle. This parameter is impacted by the [Behavior](#) parameter.

Note: Objects with an offset value of 100% will not move from the start point of the trajectory.

7.2.13. Manage sound objects

The *Manage sound objects* button will open a pop-up allow you to select which sound objects to attach to the selected animation.

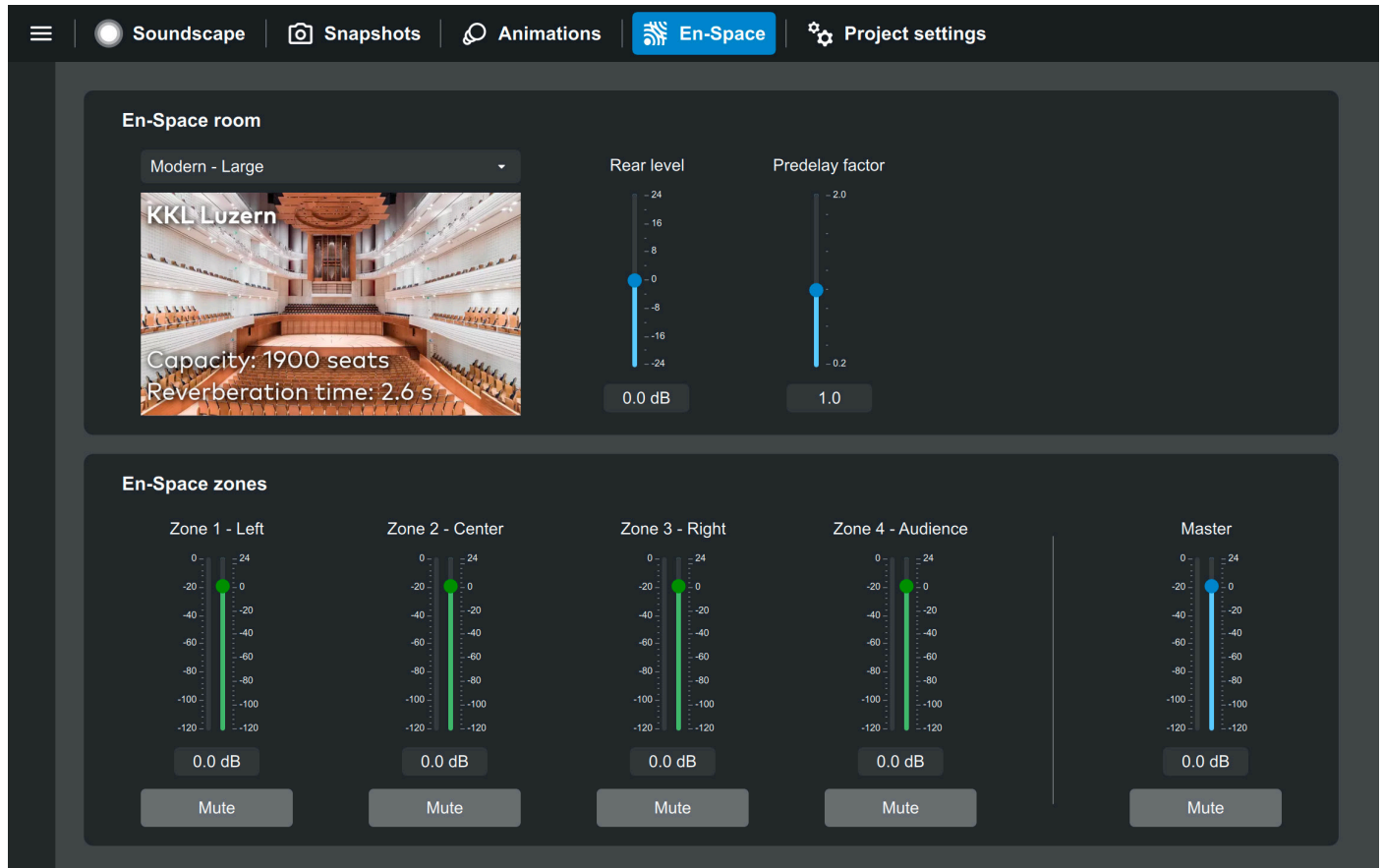
7.2.13.1. Attaching objects to animations

To attach sound objects to animations, once the Manage sound objects window is open you will see all of the sound objects in your project along with their colors. Scroll through the list or use the search or color filter to locate the sound object(s) you would like to attach, then click the toggle next to the object to attach it. To detach an object from the animation simply disable the toggle.

8. En-Space view

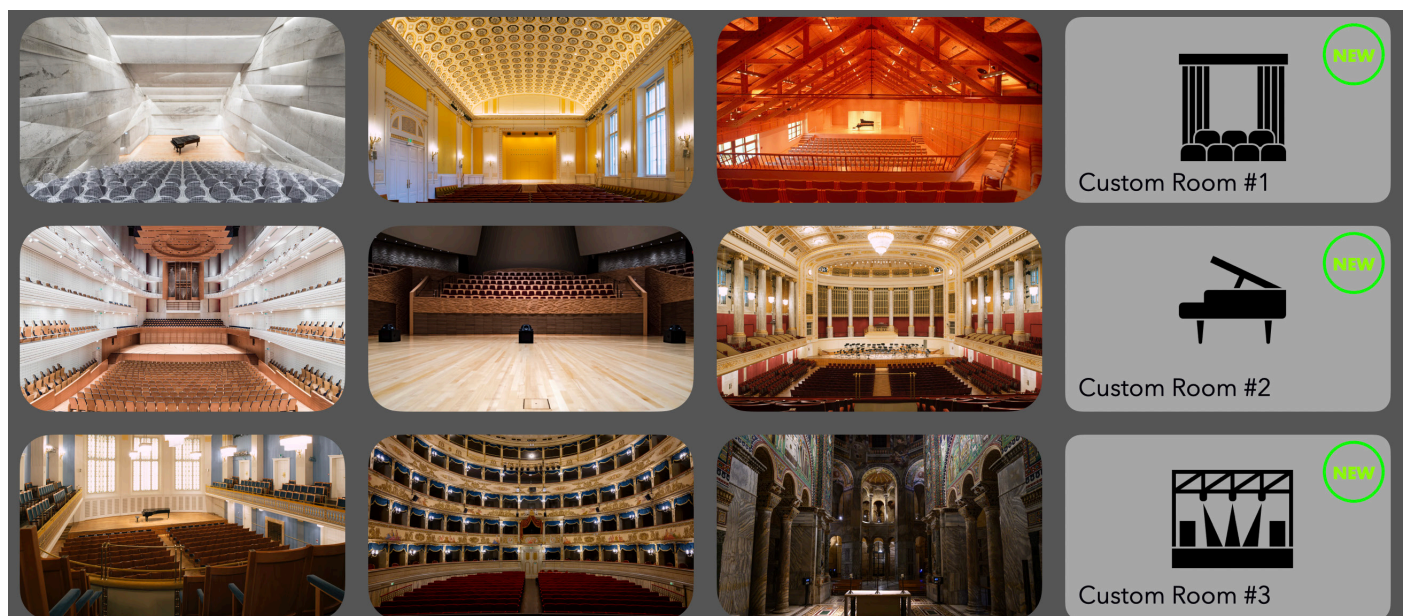
A YouTube tutorial video pertaining to En-Space controls can be found [here](#).

! En-Space usage requires a license to be installed on the Soundscape processor. Without an En-Space license, the En-Space controls are still visible and adjustable in Create.Control but emulated acoustics will be applied to the speaker system.



8.1. Room Selection

En-Space comes with a set of sampled concert venues, modern architecture and classical architecture in different sizes which range in reverberation time from 1.3 seconds to 5.6 seconds. This extremely wide range allows En-Space to be useful for a wide range of musical, theatrical, and architectural applications.



When combining a sampled space with your local environment, be aware that the acoustic responses of both rooms will add up. It is not possible to shorten the reverb of the actual venue, it will always be extended. Therefore, the venue should have a considerably shorter reverberation time than the sampled space otherwise the audible effect is limited.

There is no recommended baseline reverb time for venues that will use En-Space. But, generally speaking, shorter is better. Most venues which are effectively designed for amplified music will work well with En-Space.

A dropdown list is provided to easily choose between which acoustic environment is being emulated by En-Space. Currently, there are 9 captured rooms available which allow for a very wide range of reverb times from 1.3 seconds (theater) to 5.6 seconds (cathedral). The chosen rooms have been measured by d&b and represent some of the worlds most highly regarded acoustic spaces.

For a detailed overview of the rooms check the [En-Space venue library](#) section.

For more information about the En-Space Custom rooms service, check out section 5.3.3 in the Soundscape Guide Book located [here](#).

The list of currently available spaces to be emulated in real-time:

1. Modern - small
2. Classic - small
3. Modern - medium
4. Classic - medium
5. Modern - large
6. Classic - large
7. Modern - medium 2
8. Theater - small
9. Cathedral
10. Custom Room 1 (empty by default)
11. Custom Room 2 (empty by default)
12. Custom Room 3 (empty by default)

8.2. Rear Level

The *Rear level* fader adjusts the En-Space output levels in a ratio from the front of the venue to the back of the entire speaker deployment. The range extends from -24 dB to +24 dB, decreasing or increasing the reverberation level towards the rear of the speaker deployment.

Rear level can be used to adjust the direct-to-reverberant-field ratio along the depth of the speaker deployment. A main system with very high directivity (such as line arrays) will cause a smaller level drop over distance than point source speakers and therefore may need a higher En-Space level at the rear.

The *Rear level* fader can also compensate for the higher level drop towards the rear of a large measured venue when reproduced in a considerably smaller room.

Alternatively, use the Rear level control to adjust the artistic goal of the En-Space response without affecting En-Space or matrix-routed content.

Note: Rear level adjustments will not be reflected by the En-Space zones faders mentioned below. Those faders run independently of rear level.

For more detailed information see the Soundscape Guide Book located [here](#).

8.3. Predelay Factor

The *Predelay factor* scales the predelay of all boundary responses of the selected En-Space venue. The range extends from 0.2 to 2, with the default value of 1 maintaining the original response of the measured venue. Values larger than 1.0 will delay the onset of the room response, while smaller values shorten this time.

The Predelay factor can be used to modify the perceived size of the room. A Predelay factor of 0.2 will shrink the emulated room to 20% of its original size, while a Predelay factor of 2.0 will double the predelay, and thus double the perceived size of the emulated space.

Between the range of venues within the library and the predelay factor parameter, an extremely wide range of acoustic environments is possible.

Note: Predelay factors smaller than 1 should only be applied when the actual speaker deployment is smaller than the En-Space room selected. Otherwise the En-Space reproduction of an object may occur earlier than the direct sound.

For more detailed information see the Soundscape Guide Book located [here](#).

8.4. En-Space Zones

The En-Space engine has 4 inputs, or zones. The zones are labeled to represent sources which emanate from differing parts of the venue: (house) left, center, (House) right, and audience. Each zone (or input) will apply differing early reflections behavior which mimics the acoustic behavior of an acoustic sources emanating from that part of the venue.

To say it another way: any one of the 4 En-Space zone inputs will generate reverberation out of every speaker in your system. The zones are not meant to represent left/center/right signals, they are meant to represent the differing reverberant behavior of an acoustic source on the left side of the stage, vs the reverberant behavior of a source on the right side of the stage. The differences are nuanced and primarily relate to early reflections, as is the normal behavior in the natural world.

The level of the zone faders represents the overall level of En-Space which is set to 0dB by default. While these parameters do not need to be changed often, they can be boosted or reduced to control overall En-Space level without affecting the level of speakers or En-Scene objects.

For more detailed information see the Soundscape Guide Book located [here](#).

8.5. Master Level/Mute

In practice, it is very rare that a user wants to adjust a single En-Space zone level. For this reason, the master level control can be used to increase or decrease the volume of the En-Space engine with a single control.

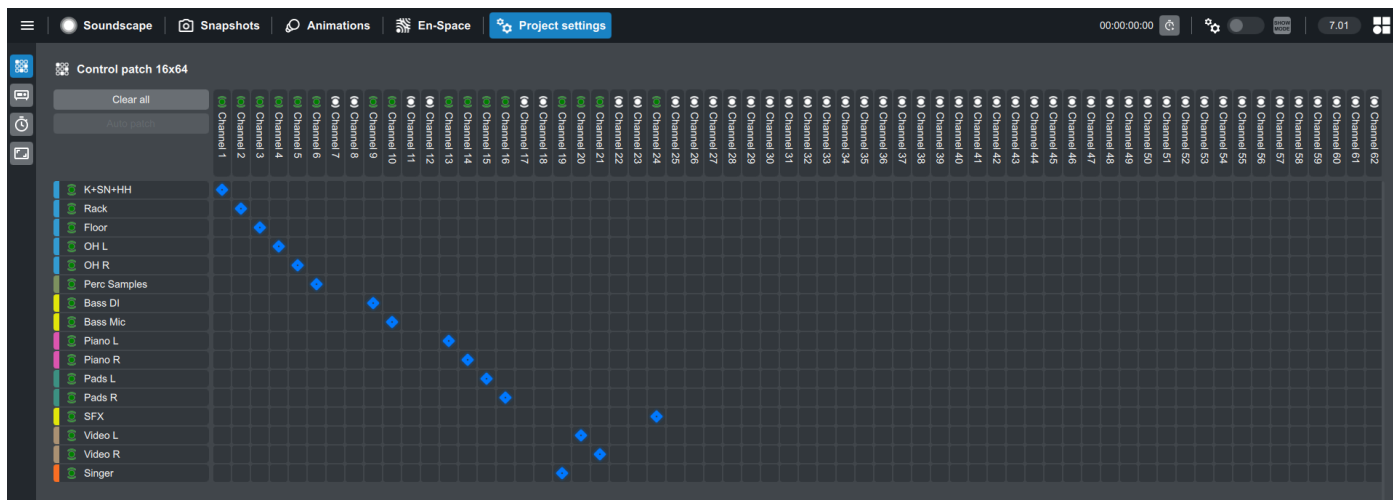
9. Project settings view

9.1. Control patch page



Channels within Create.Control can be set to control differing channels within the processor. This is to allow maximum flexibility when adapting an offline file to a real-world processor, which may already have some channels in use for other applications.

The matrix assignment will re-target the outgoing control messages to quickly conform the show file to the needs onsite without the requirement to reprogram the objects themselves.



The top row is associated with the inputs of the connected DS100 device. The quantity of channels will be determined by the channel-count supported by the processor (either 64 or 128). Once connected to a processor, the name and mode (En-Scene object or manually routed Matrix input) will be automatically displayed. In the above screenshot, it is clear that all visible processor inputs are set to En-Scene mode as indicated by the 'object' icons shown above the channel name.

Create.Control will not change the mode or rename processor input channels. If the processor channels need the mode changed or to be renamed, this must be done within R1.

This page does not affect audio routing in any way. It only changes the outgoing control messages from Create.Control.

9.2. Device setup page

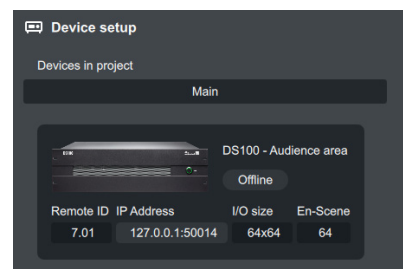


The *Devices setup page* is where you can configure the Soundscape processor connection while onsite.

9.2.1. Project device

The *Project device* is the configuration for the processor which your project can be or is connected to. The benefit here is that if you know the Remote ID and I/O size of the device you will connect to, you can pre-configure it here. Then, once the computer running Create.Control is connected to the network with the Soundscape processor, it will automatically connect.

Note: If some value which is pre-configured does not match the Soundscape processor will not connect or display an error notifying you of the mismatch I/O size.



9.2.2. Available devices on network

The *Available devices on network* field will show you all available Soundscape processors on the network. To connect to one, simply click and drag it from this list onto the Project device. This will over-write all of the values in the Project device and automatically connect to it. If the connection is a success, the device will read "Online" in green.

Note: In the event of device redundancy it is important to select the primary processor here. Device redundancy is not yet support in initial version of Create.Control.

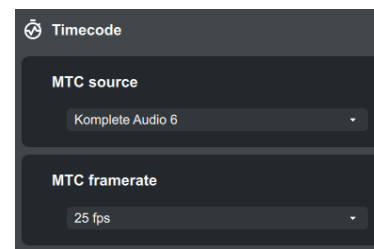
9.3. Timecode page



This is where you define the incoming source of timecode, if required. This is also where you define the expected framerate of MTC (MIDI Time Code). This is to help Create.Control be capable of receiving differing type of MTC, based on the sending device.

Support timecode framerates:

- 24 fps (24 frames per second)
 - standard frame rate derived from film
- 25 fps (25 frames per second)
 - standard frame rate derived from PAL video
- 30 DF fps (sometimes called 29.97 or drop frame)
 - standard derived from NTSC video
- 30 fps – Common in some audio-only application
 - (example: sent from Reaper)

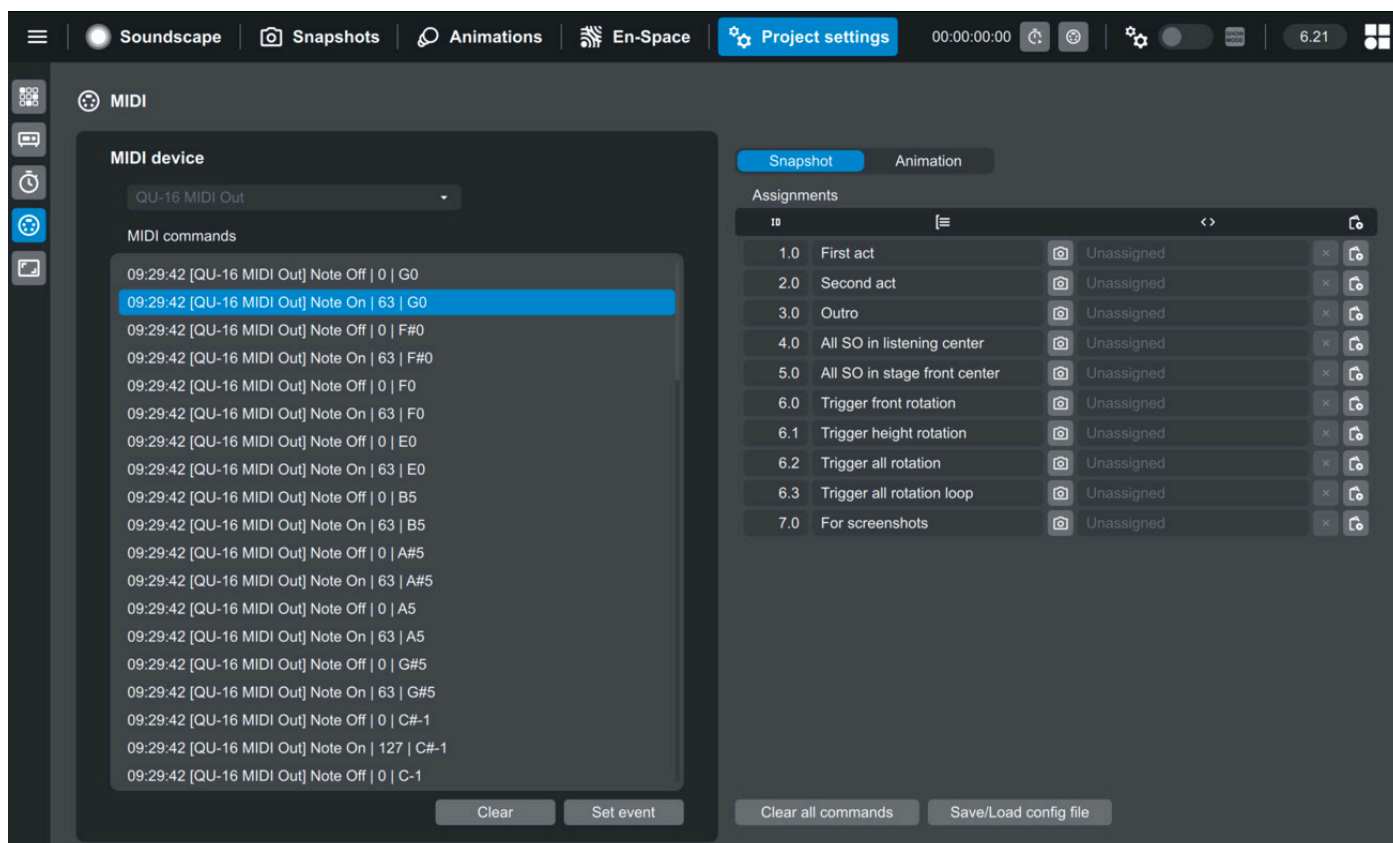


The framerate of the sending device is not determined by the sending device as indicated above (example: audio-only applications do not only support 30fps). Instead, the framerates were originally standardized within those environments but most digital equipment now supports a wide range of frame rates, chosen by you. Simply coordinate a single frame rate with whatever device is sending timecode to Create.Control.

Note: QLab's time code cues support all the above frame rates

Note: If Create.Control receives an incorrect MTC framerate, a popup window will appear to indicate what framerate is being received. The user can then choose to modify the project settings or to disable MTC all together.

9.4. MIDI mapping page



The *MIDI mapping page* allows you to map any incoming MIDI signal from one MIDI device to recall either a Snapshot or an Animation. There is no limit to the number of mappings you can assign for your MIDI device to Snapshots and Animations.

9.4.1. MIDI device

The MIDI device option allows you to view all connected MIDI devices and select the one you wish to map MIDI messages to Snapshots. After selecting your desired MIDI device, as soon as you press any button the device you will see which MIDI messages are being sent.

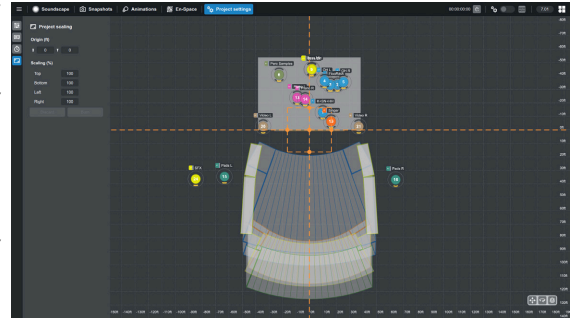
9.4.2. Mapping a MIDI message

To map a MIDI message to a Snapshot or Animation, simply press the button on your device you would like to map, then click on the message from the MIDI messages list, then click on the Snapshot or Animation you'd like that button to recall, then click the *Set Event* button. You will see the field labelled "Unassigned" will change to the selected MIDI message. Now click the MIDI icon on the top bar of Create.Control, next to the Timecode synchronization button. Now when sending the MIDI message to Create.Control it will either recall the Snapshot or trigger the Animation which it is mapped to.

9.5. Project scaling page



The *Show scaling page* allows you to re-scale your entire show to match any venue you need. This is helpful because show pre-production and sound object positioning in Create.Control can be done offline, without connection to a processor, and without any knowledge of the system configuration. In these cases, all positioning choices are made in the abstract. That is to say, sound object positions are relative to each other with an assumed scale. Once Create.Control is connected to a processor, the pre-programmed positions can be re-scaled on the fly which makes adapting the assumed positions very easy, for the entire show file.



The scaling mechanism within Create.Control is also abstract: you are presented a 10m x 10m scaling box played on top of the active object positions. The box can be moved, resized, or asymmetrically stretched which modify all existing automation, while its running. Because you will need to see and manipulate the show scaling within the viewport, the [Viewport helpers](#) exist in full in this view.

9.5.1. Origin

The *Origin* allows you to move the new point-of-origin for your sound objects. This is, by default, positioned at 0,0, or the front-center edge of the default venue's stage. In most cases, the point-of-origin should be positioned at the front-center edge of your stage, but sometimes (especially in-the-round setups) this is not true and your origin may need to be moved.

Note: The unit of measure displayed for making your origin adjustment is dependent on the [Length units](#) you have selected in the Create.Control preferences.

9.5.2. Scaling (%)

The *Scaling (%)* value allows you to stretch the object positions asymmetrically to fit nearly any use case. This can be done by entering the values into the boxes manually or dragging each side by the purple circle grips at the side of the scaling square.

Note: The maximum value which can be entered is 10,000%

9.5.3. Rotation (°)

The *Rotation (°)* function allows you to rotate your scaling, in case your target venue is oriented in another direction than current venue. The maximum value can be either 360 or -360 depending on whether you rotate your project clockwise or counterclockwise respectively.

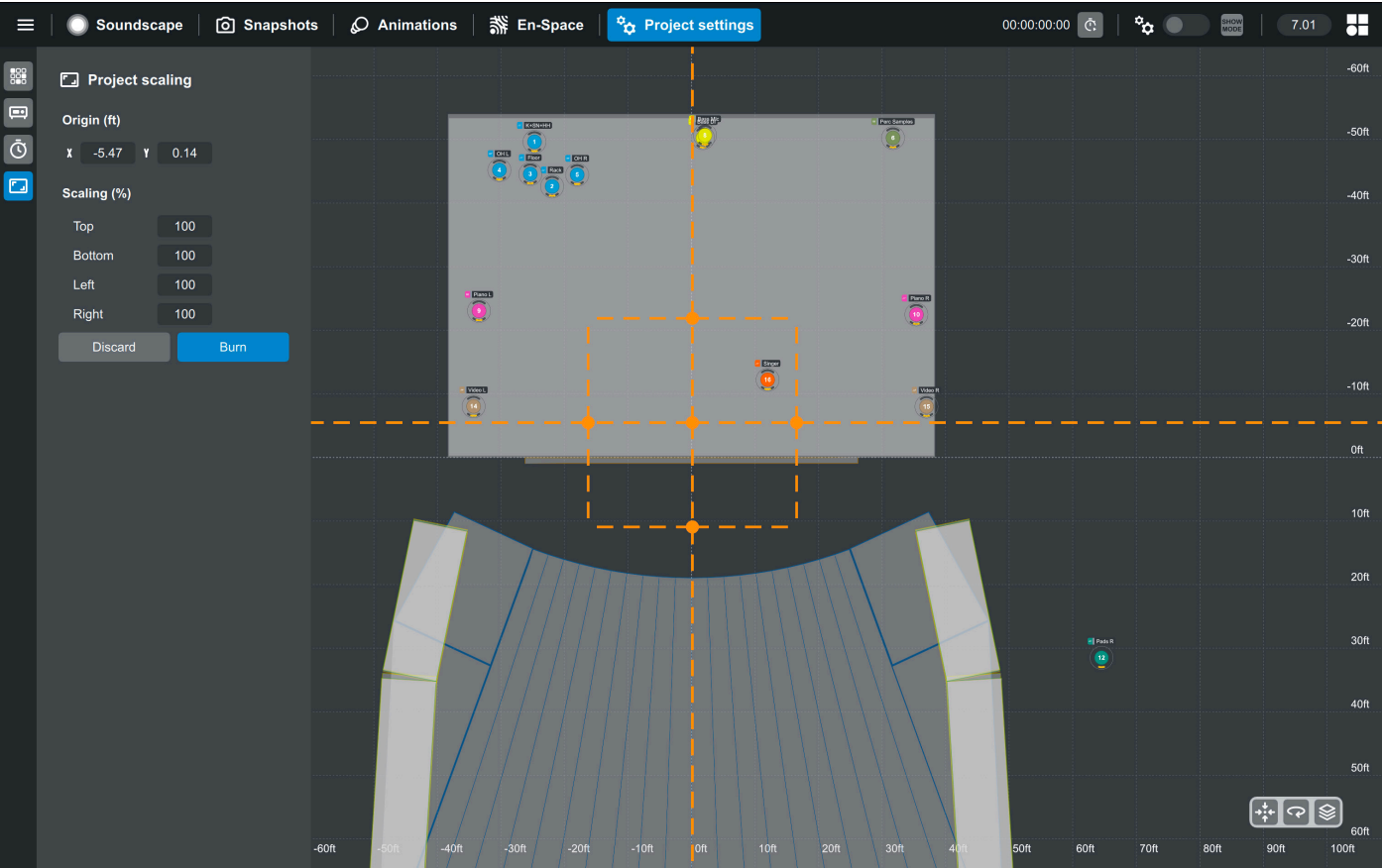
9.5.4. Discard/Burn

The Project scaling is applied automatically when the above values have been modified. In this case, you're presented with two new options—*Discard* and *Burn*.

The *Discard* function will reset all of the above values to the project's defaults, meaning the Origin returns to 0,0 and the scaling returns to 100% for all values.

The *Burn* function will commit all of the above changes and apply the new values to all sound object positions, animation positions, and across all snapshots. This is particularly helpful if you are preparing a show in advance without any prior knowledge of the venue specifics, then you can import your .dbpr file, scale the project, and then click Burn to apply the settings across all functions within the project.

 **Tip:** When using the *Burn* function, it's a good idea to save a pre- and post-scaled project file, in case you need to later adjust something prior to the scaling.



10. Mixing in Soundscape

10.1. Concept of parameters

Any sound can be freely morphed between a hyper-specific source with pin-point localization with automatic delay or a standard, mono feed to the entire PA in a traditional manner. In order to support this extremely large range of options, two parameters are available for each object/input: spread and delay mode.

10.2. Spread explained

Please see the Soundscape tutorial video entitled "Delay mode" on the d&b YouTube channel, located [here](#).

The Spread of a sound object defines whether it is reproduced in a focused (less speakers) or wide (more speakers) way. The Spread value ranges from 0 (focused) to 1 (wide) with the default value set to 50% (0.5).

Sound objects with a Spread value of less than 50% (<0.5) have a more precise (focused) localization, but utilize less speakers for coverage. Because focused objects make use of the level of fewer speakers, they are more demanding of the SPL capabilities of the individual loudspeaker(s) they play through.

Conversely, sound objects with a Spread of more than 50% (>0.5) deliver a less focused image yet provide a more even level coverage. Wide objects make use of the level of more speaker positions and therefore, are less demanding regarding the SPL capability of the individual loudspeakers. However, wide objects may not have consistent localization.

The default value of 50% (0.5) is recommended for general use and does not necessarily require adjustment.

When the Spread value for a sound object is changed, the overall level of that object does not change. This is because En-Scene will automatically compensate the level to each speaker so the overall SPL output stays consistent. For this reason, you may not hear a difference when listening from a typical mix position. Spread is best experienced in the seats which are closest to the loudspeakers.

The Spread of an object is controlled on the Soundscape view by selecting an object, either by clicking the object itself or within the sound objects list on the left, then opening the Parameters panel and adjusting the Spread fader.

Note: The amount of Spread incurred by an object is also dependent on each Function group. For example, when the Spread of an object is widened, the front fills will become wider at a faster rate than mains. This is because of the inherently different behavior of those two Function group modes. This effect can be controlled via the Spread factor control for each Function group. To learn more about Function groups and Spread factor, please read chapters 6.3.2 and 7.5.1 respectively, in the Soundscape Guide Book, located [here](#).

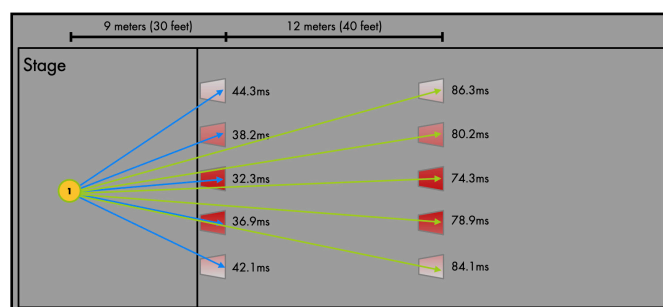
10.3. Delay modes explained

Please see the Soundscape tutorial video entitled "Spread and Spread Factor" on the d&b YouTube channel, located [here](#).

Three Delay modes are available for sound objects: *Full*, *Off*, and *Tight*. The Delay mode can be configured individually for each sound object in Create.Control on the **Soundscape view > select an object > Parameters panel**, and it is visualized above each object next to the object's name.

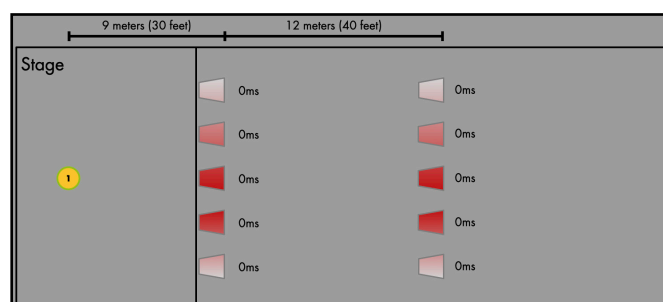
Full mode: When the Delay mode is set to Full, level and delay are used. Objects will be reproduced by all Function groups with the latency equaling the actual acoustical path length which provides consistent time alignment across the entire venue in both X and Y axes. All objects in Full mode ignore the Function Group delay parameter as time-alignment is handled in multiple axis simultaneously. For this reason, Full mode is generally recommended.

For acoustic or locally amplified instruments, such as guitar amps or wedges, Full mode should be selected in order to preserve the image and timing between the direct and reproduced sound of those sources.



Full mode: The sound object has full delay processing to every speaker position, in both X and Y axes.

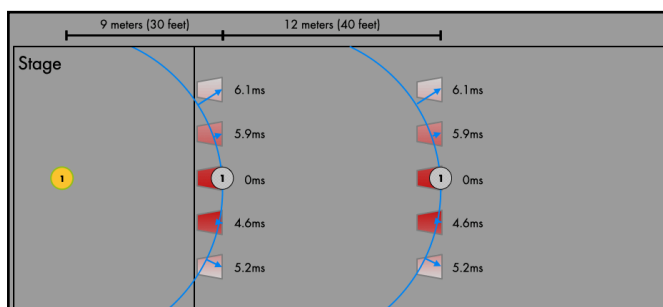
Off mode: When the Delay mode is set to Off, En-Scene only uses level adjustments to localize a sound object, without any delay times. All relevant sources of the Function group will reproduce the objects simultaneously; only the delay setting of the whole Function group will be applied for alignment with other Function groups. Off mode will provide less consistent coverage (as it inherently will be amplified by fewer speakers), less overall SPL capability, and may cause less precise localization of a sound object. However, it avoids audible artifacts of fast-moving objects as a result of the rapidly changing delay times associated with Full and Tight modes. Off mode is equivalent to VBAP (vector-based amplitude panning) which is common among other object-based mixing platforms.



Off mode: The sound object has no delay processing and operates in level-only (VBAP or Vector-Based Amplitude Panning).

Tight mode: When the Delay mode is set to Tight, level and delay are used to reproduce localization, but the total latency of its reproduction through all Function groups is minimized. The signal delay of each sound object is reduced by Δt (delta of time) equaling the distance to the closest loudspeaker of each Function group. Relative delay values between the sources of the group are kept, therefore the localization of the object is not affected.

Tight mode is beneficial for a mix of electronic instruments and/or pre-recorded material in order to reduce relative delays between the channels depending on the placement of the objects, thus keeping the mix "tight." Tight mode is also advantageous for moving sound objects, as it reduces the variation speed of the signal delays.



Tight mode: The sound object has differing delay times per speaker position for more consistent coverage and localization, but the overall delay is minimized separately for each Function group. Shown above is the actual object position (yellow) and the algorithm's presentation of the object (grey).

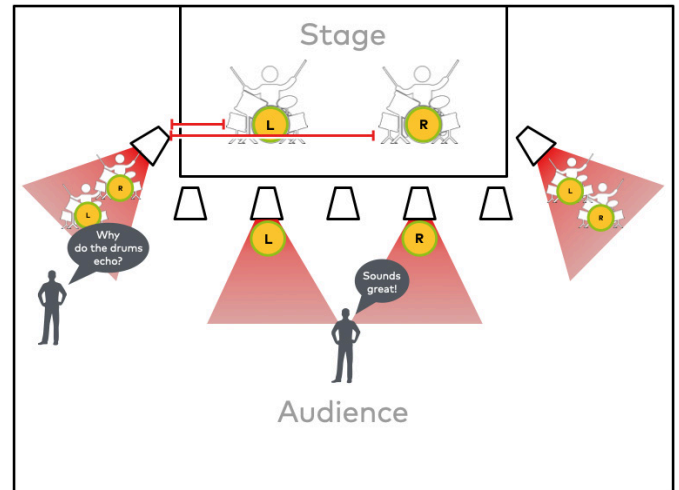
Note: Full and Tight modes are only compatible with sound objects placed behind loudspeakers. Objects placed in front of all loudspeakers will automatically behave in Off mode, as delay is no longer possible. The object's Delay mode parameter will not visually change to Off, as it is still possible that the object may be delayed through other speakers in the venue. For example, under-balcony fills which point away from the object's position although the object is in front of the mains.

Note: Tight and Off modes will not properly time-align to the speaker automatically. For both these modes, a meaningful Function Group delay parameter input is required when commissioning the system with R1. Function Group delay is typically set once, during initial setup. For more information about Function Group delay and R1 please read chapter 7.5.2 in the Soundscape Guide Book, located [here](#).

10.4. Considerations for object placement

10.5. Stereo Content

Two-channel stereo content can be applied to two sound objects. Be careful when applying delay processing to stereo objects because the two channels share much of the same data. This means that the shared content could be summed into mono outfills with differing delay times. This easily goes unnoticed if the mix position is not within the coverage of the outfills.



In the illustration above, you can see two sound objects labelled L and R, which represent the position of a stereo drum bus. As is typical, the drum bus has kick, snare, and hi-hat all panned in the center. This means those signals will be sent to object "L" and object "R" at the same level. If the Delay mode of the two objects are set to Full, they will both combine into the mono outfills with differing delay times because they each have different distances from each mono outfill. The result is that the kick, snare, and hi-hat will come out of those speakers twice with different delay times. Channels which are hard-panned (such as overheads) will not exhibit this behavior because they are handled by only one object.

Tip 1: Don't use stereo mixes if you can avoid it. Once signals are mixed to stereo, they can no longer benefit from the advantages of Soundscape. When stereo content can't be avoided, those objects should be used in Off mode, or you may consider switching those DS100 inputs from En-Scene mode to Matrix mode and manually routing them in a traditional stereo method.

Tip 2: If you want stereo objects to be run in Full mode, you can consider utilizing the [Sound object routing](#) function to ensure that only one of the objects is sent to the Function group which handles the mono outfills.

Tip 3: You may also consider utilizing a third-party plugin to convert the 2-channel stereo content into stems or a surround upmix.

10.6. Musical timing and object positions

With *Full* mode selected, the sound of a sound object is reproduced by multiple loudspeakers with different delay times, each depending on the distance between the object and the respective loudspeaker. Furthermore, objects in all Delay modes are still subject to the natural propagation delay of sound (sound traveling through the air after leaving the loudspeakers. More info [here](#)).

Consequently, objects in differing positions are played through the loudspeakers with differing delay times, to differing listener positions. This unavoidable effect may create audible artifacts regarding the relative timing of instruments and negatively impact musical timing. Therefore, ensure that the physical distribution of the sound objects stays within acceptable musical limits. As

a rule of thumb, a distance of roughly 15m/50ft (or 45ms) between rhythmic instruments should not be exceeded.

For non-rhythmic sounds, you have more freedom to place objects much further without disturbing the musical tempo/rhythm (for example: pads, choir, organ, and sound FX). Far distances may also work well with signals that have intentionally distorted timing such as stereo guitars with delay and reverb returns.

In general, objects should be placed to accurately represent the performer's actual position on stage. Off and Tight Delay modes may also help to reduce timing issues in some situations.

10.7. Low-frequency impact

When listening at the mix position, which is typically in the center of the venue, it may sound like Off mode provides more impact or presence. This is the typical result of any speaker system without varying delay times applied to speakers: more energy is focused towards the center of the room, and this effect is commonly referred to as the "power-alley." In other words, while more impact is perceived in the middle of the venue, less impact will be perceived in all other areas of the venue, which creates inconsistency.

Furthermore, speaker zones such as outfills and front fills may now sound too loud and lack transparency because of their less precise delay times.

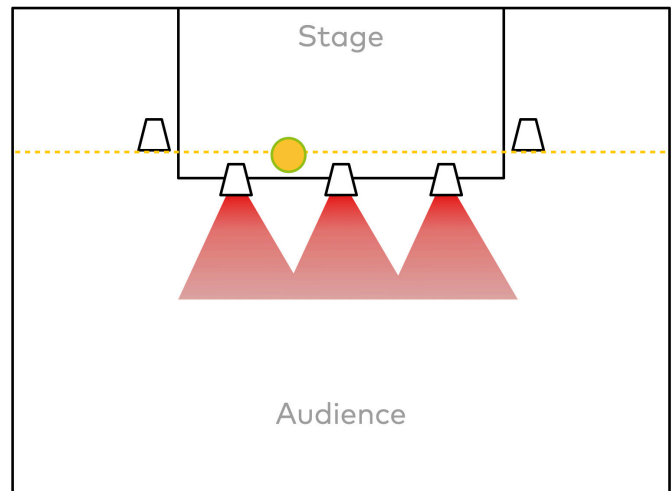
If you prefer the sound of more impact, use the channel processing on the mixer instead of biasing the object behavior.

10.8. Object vs speaker positions

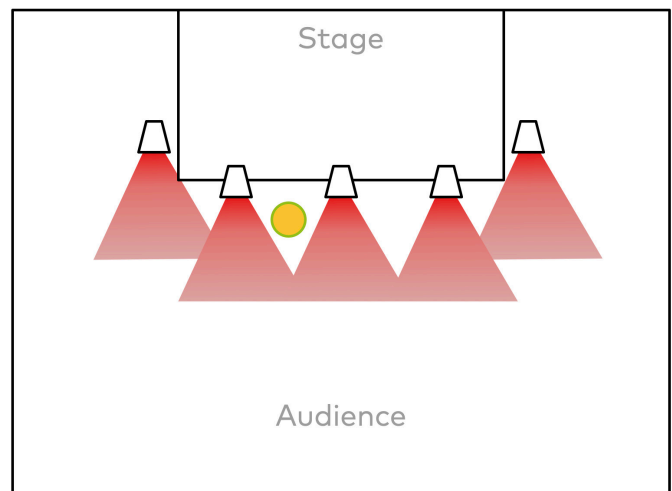
The En-Scene algorithm considers every object position in combination with speaker position and orientation. Furthermore, delay-processing is only possible when an object is behind speakers. As an object gets closer to a given speaker, the delay time will be gradually minimized. When the object crosses in front of the speaker, the delay time will become zero. The sound object now behaves in level-based panning mode (VBAP).

Additionally, there are a couple of rules built into the algorithm which are constantly being managed by En-Scene and may influence considerations for object placement, speaker placement, and speaker orientation:

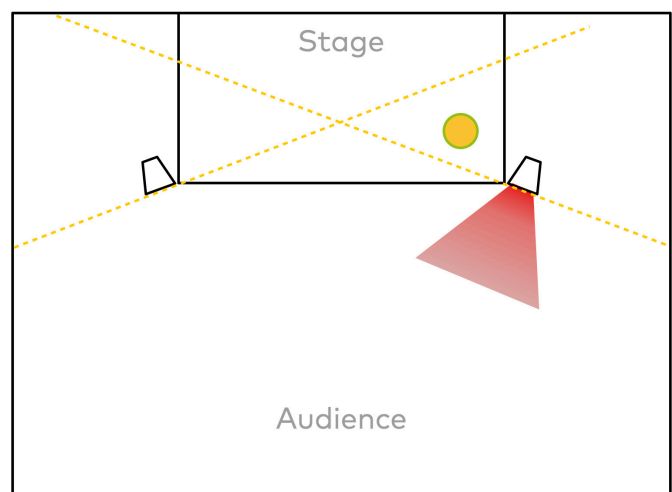
- The overall acoustic level of a sound object should never change, regardless of its position or how many speakers are amplifying it.
- En-Scene will always prioritize speakers which face away from a sound object's position. This is a requirement of the delay-processing.



Shown above: an object which is in front of the outer speakers (represented by the yellow dashed line). Therefore, the signal comes out of the remaining speakers within the Function Group. This illustrates one reason why it is generally recommended to deploy speakers within a linear line. Alternatively, if it is desired to have the outer speakers amplify this object position, they can be turned outward within ArrayCalc.



Shown above: an object which is in front of all speakers in the Function group. Therefore, the signal will come out of all speakers, without delay processing (level-based panning only).

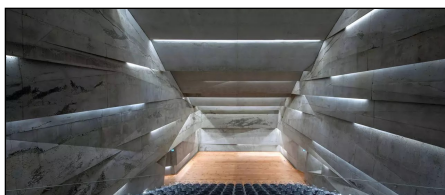


Shown above: as a result of the horizontal angle of the speakers, this object is considered in front of the left speaker and behind the right speaker. If it is desired to have both speakers working to amplify this object position, rotating the speakers towards the audience within ArrayCalc (not in the venue) may be a suitable solution.

11. Additional resources

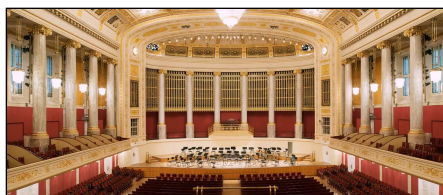
11.1. En-Space venue library

Space #1: Modern - Small



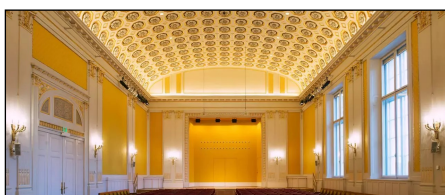
Blaibach Concert Hall
Capacity: 200 seats
Reverberation time: 2.0s
(T40: 200 Hz - 2 kHz)

Space #6: Classic - Large



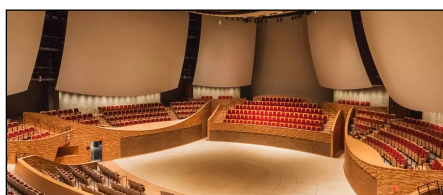
**Großer Saal,
Vienna Concert Hall**
Capacity: 1850 seats
Reverberation time: 2.4 s
(T40: 200 Hz - 2 kHz)

Space #2: Classic - Small



**Schubert Saal,
Vienna Concert Hall**
Capacity: 350 seats
Reverberation time: 1.9s
(T40: 200 Hz - 2 kHz)

Space #7: Modern - Medium 2



**Bing Concert Hall,
Stanford**
Capacity: 850 seats
Reverberation time: 2.2s
(T40: 200 Hz - 2 kHz)

Space #3: Modern - Medium



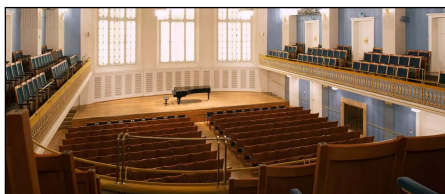
**Angelika-Kauffmann
-Saal, Schwarzenberg**
Capacity: 600 seats
Reverberation time: 1.7s
(T40: 200 Hz - 2 kHz)

Space #8: Theater - Small



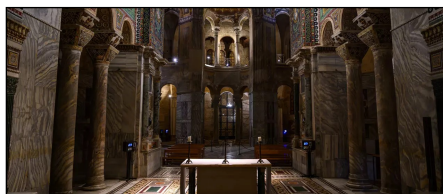
**Teatro Alighieri,
Ravenna**
Capacity: 830 seats
Reverberation time: 1.3s
(T40: 200 Hz - 2 kHz)

Space #4: Classic - Medium



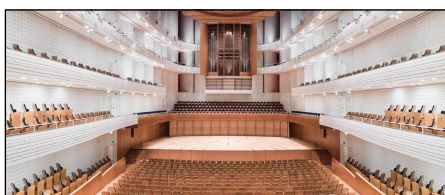
**Mozart Saal,
Vienna Concert Hall**
Capacity: 700 seats
Reverberation time: 2.1s
(T40: 200 Hz - 2 kHz)

Space #9: Cathedral



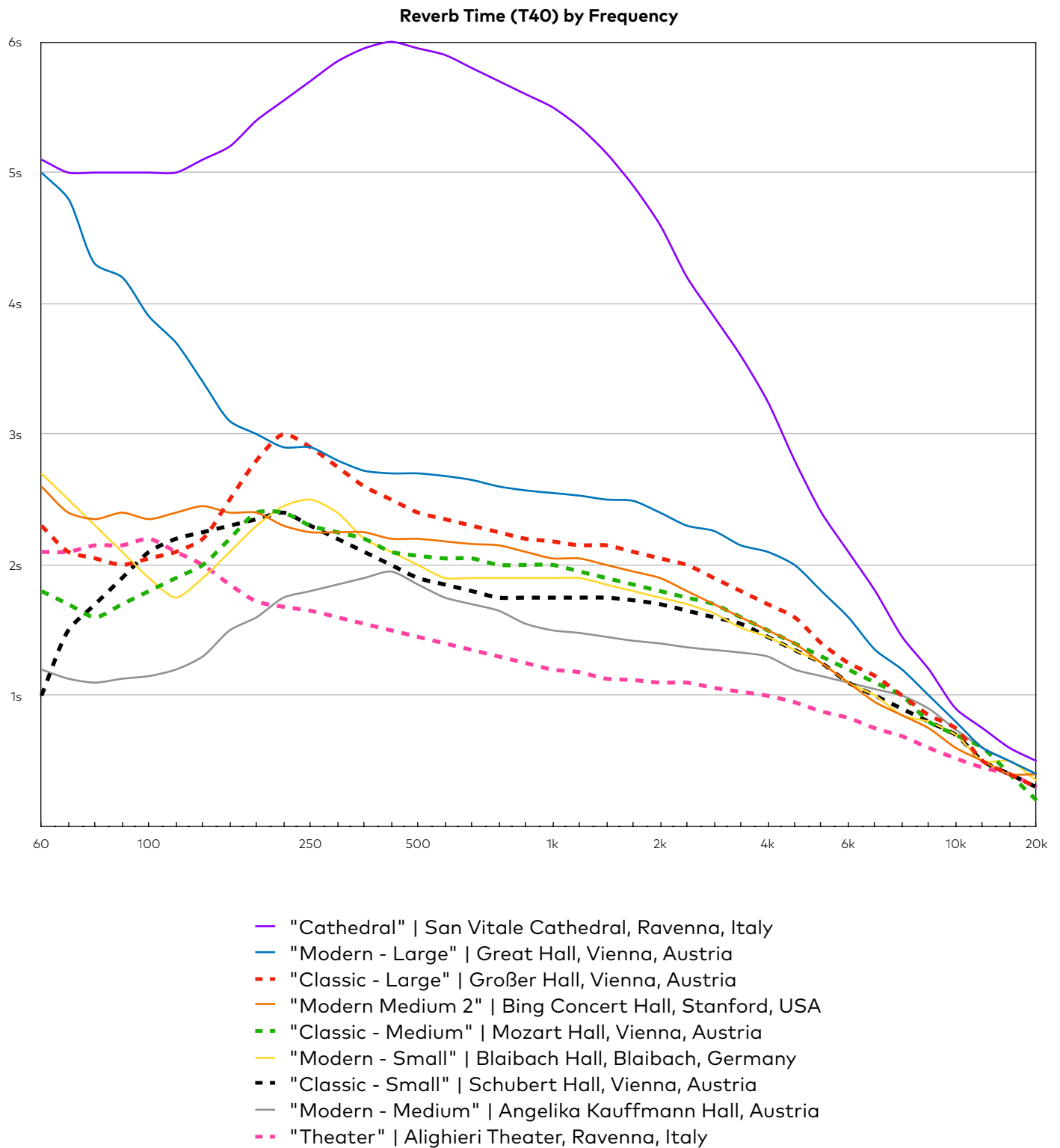
**Basilika San Vitale,
Ravenna**
Capacity: - -
Reverberation time: 5.6s
(T40: 200 Hz - 2 kHz)

Space #5: Modern - Large



KKL Luzern
Capacity: 1900 seats
Reverberation time: 2.6s
(T40: 200 Hz - 2 kHz)

11.2.En-Space venues compared



General information

Create.Control Manual

Version: July 2025, 1.0

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12. FAQ

Can R1 control a DS100 at the same time as Create.Control?

Yes, absolutely! It can run either on the same computer as R1, or on a separate computer on the network, and both can communicate with the DS100 simultaneously. However, Create.Control cannot run on the same machine as R1, if both are to be used at the same time.

Can an third-party controller such as DiGiCo, BlackTrax, or QLab control a processor while Create.Control is running?

Absolutely! However, try to avoid having multiple controllers send conflicting messages to the processor at the same time. As long as Create.Control isn't sending conflicting messages to the same parameters, Create.Control will simply visualize the changes applied by the third-party device or R1.

For more information, check out the Soundscape Guide Book located [here](#).

Can Create Control run on the same machine as an OSC controller such as QLab or DAW plugins?

Yes! Create.Control works via OCA and thus, does not conflict with OSC traffic.

For more information, check out the Soundscape Guide Book located [here](#).

My DS100 or DS100M seems to be running laggy with a delay where objects move long after they did in Create.Control. What do I do?

This is a known issue with DS100 and DS100M firmware before v3.02.00. Go to the service tab of R1 and check for newer firmware version (internet connection required).

WARNING!!! Be sure to save a 'system settings' within R1 so you have a restore point after the new firmware wipes your processor.

I wish I could listen to my Create.Control show in headphones without a Soundscape processor!

Thats an interesting idea ;)

I have a question that is not listed here... what do I do?!

Email support@dbaudio.com to talk to a member of the Education and Application Support team. Tell us where you live so we can transfer your request to someone in your local time zone and language.

I don't understand how to set my sending devices timecode settings... who can help?

Click [here](#)

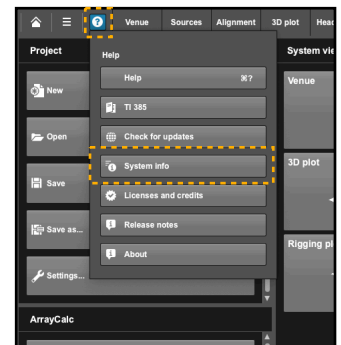
I want a new feature or additional functionality... who should I ask?

Please email us and let us know! Email support@dbaudio.com

Something bad happened... how do I report a bug or ask for help?

Please email us and let us know! Email support@dbaudio.com

- What did you expect to happen in the software or processor?
- What actually happened in the software or processor?
- What is your computing environment?
 - Please go to the help menu of ArrayCalc or R1 and save a "system information" and attach it to the email (shown to the right).
- Extra points if you include screenshots or screen captures!



I found a typo or unclear concept and would like to help contribute to improving this document. Who should I notify?

Please email us and let us know! Email support@dbaudio.com

13. Document change log

December 2025 - v1.2

- Added section for MIDI triggering
- Changed screenshots to account for v1.2
- Added v1.2 to Whats New section
- Many changes and additions to account for user experience improvements within v1.2

July 2025 - v1.0 - Nick Malgieri, Andrew Rahman, Serge Gräfe, & Christian Ahrens

- The creation of this document based on initial features at the time of initial software release

June 2025, Nick Malgieri

- Fixed a lot of formatting
- Exported as "draft" for use in Phase 2 of create.Control beta testing

June 2025, Andrew Rahman

- Replaced all instances of Create Control with Create.Control
- Changed formatting to match SSC Guide Book
- Added section numbers
- Re-aligned images to fit A4 formatting
- Ensured all Headers contain the correct Title Bar (several had SSC Guide Book)
- Added 1pt outlines to all relevant images and tables to match SSGB design
- Updated dates from 6/25 to 7/25
- Fixed a lot of formatting
- Added head and footer to match the SSGB
- Update version number to 0.20
- Added page numbers to all pages
- Fixed General Information location on page